



MONMOUTHSHIRE COUNTY COUNCIL.

PUBLIC HEALTH
REPORT
FOR THE YEAR 1928.

D. ROCYN JONES,

C.B.E., M.B., D.P.H., J.P.,

County Medical Officer.

THE COUNTY HALL,
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CONTENTS.



	Page.		Page.
Ambulance Facilities ...	11	Small Pox and Vaccination	41
Anthrax and Rabies ...	68	Whooping Cough ...	66
Area, Population, etc. ...	3	Institutional Provision for	
Bacteriological Laboratory ...	14	Unmarried Mothers ...	11
Births	4	Isolation Hospitals	8
Blind Persons Act, 1920 ...	98	Maternal Mortality	7
Cancer	67	Maternity and Child Welfare	98
Chemical Analysis	14	Meat Inspection	27
Clinics and Treatment Centres	12	Midwives	13
Closet Accommodation ...	20	Milk Supply	24
County Sanitary Inspector,		Natural and Social Conditions	
work of	24	of the Area	3
Deaths	5	Notifiable Diseases	37
Disinfection	69	Professional Nursing in the Home	13
Drainage and Sewerage ...	18	Public Health Laboratory	14 and 102
Food Inspection and Supervision	24	Public Health Officers ...	12
General Provision of Health		Public Health (Milk and Cream)	
Services in the Area ...	8	Regulations, 1912 and 1917	34
General Statistics	3	Rag Flock Acts, 1911 and 1928	68
Hospitals	8	Rainfall	106
Housing	22	Rats, etc.	68
Infantile Mortality ...	7	Registration of Maternity Homes	13
Infectious Diseases, prevalence		Rivers and Streams ...	17
of, and control over ...	35	Sale of Food and Drugs Act	29
Cerebro Spinal Fever and		Sanitary Circumstances of the	
Acute Poliomyelitis ...	41	County Area	14
Chicken Pox	66	Sanitary Inspections of Districts	21
Diarrhoea and Enteritis	41	Scavenging	21
Diphtheria	40	Schools, Sanitary conditions of	22
Enteric Fever	41	Scope of Report	3
Encephalitis Lethargica	66	Smoke Abatement	22
Erysipelas	67	Social Conditions	3
Influenza	67	Tuberculosis	69
Measles	40	Vaccination	41
Ophthalmia Neonatorum	67	Venereal Diseases	92
Pneumonia, Malaria,		Vital Statistics	4 and 107
Dysentery, etc. ...	66	Water Supply	14
Puerperal Fever ...	67	Welsh National Memorial	
Puerperal Pyrexia ...	68	Association Scheme ...	75
Scarlet Fever	40	Zymotic Diseases	35

REVIEW

OF THE

GENERAL SANITARY CONDITIONS

OF THE

COUNTY OF MONMOUTH

FOR THE YEAR 1928.

SCOPE OF THE REPORT.

Under Article 14 (3) of the Sanitary Officers Order 1926, and in accordance with Circular 939 (Wales) of the Ministry of Health (Welsh Board of Health) the Annual Reports for 1928 become the third of the second series of "Ordinary reports."

The "Survey" Reports which are of a full and detailed character are prepared at intervals of **not less than five years**, as required by the Ministry of Health. The Annual Report for 1925 dealt with the matters required, in a detailed form, under the various headings, and was the "Survey" Report which completed the first series of Annual Reports.

NATURAL AND SOCIAL CONDITIONS OF THE AREA.

Area (acres) 345,048.

Population (1921 Census) 358,436.

Do. (Estimated 1928) 361,300

Number of structurally separate dwellings occupied (1921), 66,925.

Number of private families (1921) 75,898.

Rateable value, £1,714,724.

Product of a penny rate, £6,515 8s. 1d.

SOCIAL CONDITIONS.—The County of Monmouth is partly industrial and partly agricultural. The Eastern, Western, Rhymney and Sirhowy Valleys are thickly populated coal mining districts, in which are also iron, steel and tin-plate works. There are also in some of these districts coal bye-product plants. The remaining portions of the County are practically agricultural communities.

In the industrial portion of the County there is still a good deal of unemployment, due to the fact that some of the collieries have not been re-opened and others working only part time. This also applies to other industrial concerns.

The administration of the Poor Law Relief in the Area of Bedwellty Union was, during the year 1928, under the control of the Commissioners appointed by the Minister of Health. The general conditions in this portion of the County, although showing an improvement, are still by no means satisfactory, and there is much poverty prevailing.

The Collieries and Works have well organised medical arrangements. The Royal Gwent Hospital at Newport, and also the District Hospitals in the various areas are well patronised by the residents of the County.

VITAL STATISTICS.

The Vital Statistics for England and Wales for the year 1928, compiled by the Registrar-General, are as in the subjoined table. The Monmouthshire figures are given for the purpose of comparison.

	Birth Rate per 1,000 of population.			Death Rate per 1,000 living.		Deaths under one year per 1,000 births.	
	Live Births	Still Births	Live Births				
ENGLAND & WALES ...	16.7	.70	1927 (16.7)	1928 11.7	(1927) (12.3)	1928 65.	(1927) (69.)
105 County Boroughs and Great Towns, including London ...	16.9	.70	(17.1)	11.6	(12.2)	70.	(71.)
157 Smaller Towns (1921 adjusted populations, 20,000 —50,000) ...	16.6	.73	(16.4)	10.6	(11.3)	60.	(68.)
London ...	15.9	.53	(16.1)	11.6	(11.9)	67.	(59.)
MONMOUTHSHIRE ...	18.3	.75	(17.5)	10.9	(11.0)	72.29	(87.3)

In all cases the estimated populations as supplied by the Registrar-General have been used for the purposes of this table. It is noted that there is a decrease of approximately 10,000 in the estimated population as compared with last year.

BIRTHS.—The total number of births registered in the Administrative County during 1928 was 6,612, made up as follows:—

	Legitimate		Illegitimate		Total		Grand Total
	Male	Female	Male	Female	Male	Female	
Urban Districts	2802	2749	106	103	2908	2852	5760
Rural Districts	421	394	20	17	441	411	852
Total ...	3223	3143	126	120	3349	3263	6612

In 1927 there were 6,522 births; in 1926, 7,575 births; in 1925, 8,100 births; in 1924, 8,368 births; in 1923, 8,737 births; in 1922, 8,805 births; in 1921, 10,312 births; in 1920, 10,779 births; in 1919, 8,487 births; in 1918, 8,948 births; in 1917, 8,402 births; in 1916, 8,848 births; in 1915, 10,194 births; and in 1914, 9,455 births. The birth-rate for 1928 was 18·3 per 1,000 persons living. In 1927 the rate was 17·5; in 1926, 20·3; in 1925, 21·5; in 1924, 22·3; in 1923, 23·5; in 1922, 23·8; in 1921, 28·3; in 1920, 29·2; in 1919, 22·9; in 1918, 24·8; in 1917, 23·1; in 1916, 25·7; in 1915, 28·59; and in 1914, 30·2.

For the Urban Districts of the County the birth-rate was 18·6 per 1,000 for 1928, and for the Rural Districts, 16·3, as compared with 17·8 and 16·5 respectively for 1927, and 21·02 and 15·84 for 1926.

The birth-rate for 1928 shows an increase of ·8 upon the rate for 1927, which was the lowest ever recorded for the County.

The number of births of illegitimate children was 246, which gives a rate of 37·2 per 1,000 of the total births, and ·68 per 1,000 population. Last year the number was 251, equal to 38·48 per 1,000 births, and ·67 per 1,000 of population. For the year 1926, the figures were 258, equal to 34·06 per 1,000 births, and ·69 per 1,000 population.

The birth-rate for England and Wales was 16·7.

DEATHS.—The total number of deaths registered in the Administrative County, as shown in the Registrar General's table, was 3,954, as compared with 4,088 in 1927, 3,499 in 1926, 3,980 in 1925, 3,962 in 1924, 3,860 in 1923, 4,238 in 1922, 4,107 in 1921, 4,379 in 1920, 4,171 in 1919, 4,943 in 1918, 3,822 in 1917, 4,979 in 1916, 5,063 in 1915, and 4,356 in 1914.

The general death-rate, calculated upon the estimated population of 361,300, works out at 10·9 per 1,000 living. In 1927, the rate was 11·0; in 1926, 9·4; in 1925, 10·6; in 1924, 10·6; in 1923, 10·4; in 1922, 11·4; in 1921, 11·3; in 1920, 11·9; in 1919, 11·7; in 1918, 15·3; in 1917, 11·7; in 1916, 12·9; in 1915, 15·3; and in 1914, 12·8. For the Urban Districts the rate for 1928 was 10·8, and for the Rural Districts, 11·4.

The death-rate for England and Wales was 11·7.

The County death-rate of 10·9 is a decrease upon the previous year's figure, which was 11·0.

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY.

Causes of Death.	All Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.
All Causes ...	3954	478	121	116	151	228	470	983	1407
Enteric Fever ...	5	...	...	...	...	4	1	...	...
Small Pox ...	...	...	...	...	...	...	...	...	...
Measles ...	43	8	14	16	4	...	1	...	...
Scarlet Fever ...	1	...	...	...	1	...	...	...	...
Whooping Cough ...	41	17	15	7	2	...	...	...	...
Diphtheria ...	20	...	...	9	10	...	...	1	...
Influenza ...	99	2	1	3	4	8	16	34	31
Encephalitis Lethargica ..	16	...	...	3	7	1	4	1	...
Meningococcal Meningitis	2	1	...	...	...	1	...	...	...
Tuberculosis of the Respiratory System ..	266	1	...	...	10	78	117	49	11
Other Tuberculous Diseases	65	4	5	6	12	17	15	5	1
Cancer, Malignant Disease	345	...	...	2	...	3	29	188	123
Rheumatic Fever ...	11	...	...	1	3	2	2	3	...
Diabetes ...	42	...	...	...	...	3	3	18	18
Cerebral Hæmorrhage, etc.	206	...	...	...	...	...	4	56	146
Heart Disease ...	692	...	...	...	13	27	57	213	382
Arterio-sclerosis ...	129	...	...	...	...	...	1	24	104
Bronchitis ..	256	28	10	5	3	1	6	46	157
Pneumonia (all forms) ...	297	85	50	29	14	6	32	47	34
Other Respiratory Diseases	55	3	3	4	...	3	12	14	16
Ulcer of Stomach or Duodenum ...	23	...	...	...	1	...	6	13	3
Diarrhœa, etc. ...	53	28	7	5	1	...	2	6	4
Appendicitis and Typhlitis	27	...	...	2	6	2	7	6	4
Cirrhosis of Liver ...	14	...	...	...	1	...	...	11	2
Acute and Chronic Nephritis	127	...	...	1	8	9	15	46	48
Puerperal Sepsis ...	15	...	...	...	...	5	10	...	...
Parturition, apart from Puerperal Fever ..	22	...	...	...	...	7	15	...	...
Congenital Debility, etc. ..	221	217	...	2	1	1	...	...	...
Violence, apart from Suicide	191	8	4	12	26	26	50	42	23
Suicide ...	34	...	...	...	...	1	6	20	7
Other Defined Diseases ...	632	75	12	9	24	23	58	140	291
Causes ill-defined or unknown...	4	1	...	...	...	...	1	...	2

MATERNAL MORTALITY.—The number of women dying in, or in consequence of child-birth, was, from sepsis, 15; and from other causes, 22.

INFANTILE MORTALITY.—The total number of deaths under one year of age throughout the Administrative County was 478, 425 in the Urban Districts and 53 in the Rural Districts.

The rate per 1,000 births was 72·29, a decrease of 15·01 upon the figure for 1927, which was 87·3. The figure for the year 1928 is the second lowest on record for the County, the previous lowest being 66·1 for the year 1926.

In the Urban Districts the rate was 73·78 per 1,000 births, and in the Rural Districts, 62·2 per 1,000 births.

In 1927, the Infantile mortality rate was 87·3; in 1926, 66·1; in 1925, 83·8; in 1924, 75·6; in 1923, 73·0; in 1922, 83·4; in 1921, 91·5; in 1920, 87·9; in 1919, 88·0; in 1918, 97·6; in 1917, 84·3; in 1916, 88·4; in 1915, 128·5; in 1914, 106; in 1913, 115; in 1912, 105; in 1911, 149; in 1910, 112; in 1909, 104; in 1908, 142 per 1,000 births.

The rate for England and Wales was 65.

The average Infantile Mortality rate for the 25 years, 1891—1915, was 137·4. The average for the thirteen years, 1916—1928, was 83·0.

The number of deaths of illegitimate children under one year of age was 28, or 4·2 per 1,000 of all births and 113·8 per 1,000 of illegitimate births. Last year the number of deaths was 27, or 4·1 per 1,000 of all births, and 107·6 per 1,000 of illegitimate births.

The measures adopted by the County for the reduction of Infantile Mortality are fully dealt with in the Report upon Maternity and Child Welfare for the year 1928, which has already been published and presented to the Council.

Number of deaths occurring during certain age periods in children under one year of age:—

	Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 1 month	1—3 months	3—6 months	6—9 months	9—12 months	Total under 1 year
Urban Districts	119	35	31	13	198	56	61	53	47	415
Rural Districts	20	4	2	3	29	7	5	3	4	48
	139	39	33	16	227	63	66	56	51	463

N.B.—The figures in the foregoing table were supplied by the District Medical Officers of Health.

CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR OF AGE.

Causes of Death	No. of Deaths.			Rate per 1000 Births—Admini- strative County
	Urban Districts.	Rural Districts.	Administrative County.	
Infectious Diseases ...	26	2	28	4.23
Diarrhoeal Diseases ...	24	4	28	4.23
Wasting Diseases ...	185	32	217	32.82
Respiratory Diseases ...	106	10	116	17.54
Tubercular Diseases ...	4	1	5	.75
Other Causes ...	80	4	84	12.70
Totals ...	425	53	478	72.29

The number of deaths in the Administrative County from the following diseases were:—

Measles—all ages ...	43
Whooping Cough—all ages ...	41
Diarrhoea—under 2 years of age ...	35

The reports of the District Medical Officers of Health show that there has been an increase in the number of deaths from Cancer, but the number of deaths from Respiratory Diseases is much below the figure for 1927. There is also an increase in the number of deaths from Measles and Heart Disease, but there is a marked decrease in the number of deaths from Influenza, the figures being, 1928, 99 deaths; 1927, 175 deaths.

GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

HOSPITALS.

The following is a statement of the Hospital accommodation available for the Administrative County:—

A (1) Fever.

The following are the Isolation Hospitals at present in the County:—

Abergavenny Joint Hospital, Llanfoist (owned jointly by the Abergavenny Town Council and Abergavenny Rural District Council)	... .. 3 wards,	41 beds
Abersychan Urban Council "Beeches"	... .. 3 ,,	56 ,,
		and 2 cots
Abertillery Urban Hospital, Coedcaeddu	... .. 2 ,,	16 ,,
Bedwellty Urban Hospital, Coedmoeth	... .. 6 ,,	55 ,,

Chepstow Joint Hospital, St. Arvans (owned jointly by Chepstow Urban and Rural District Councils)					5 wards	23	beds
						and 3 cots	
Ebbw Vale Urban Hospital, Beaufort	...	...	5	„	10—12	„	
Monmouth Borough Hospital, Buckholt	...	...	3	„	10—12	„	
Nantyglo and Blaina Urban Hospital, Coalbrookvale			3	„	5—7	„	
Tredegar Urban Hospital, Ash Vale, Nantybwh	...	2	„		20	„	

Cases from Abercarn, Bedwas and Machen, Caerleon, Llanfrechfa Upper, Llantarnam, Panteg, Risca, Mynyddislwyn, and Usk Urban Districts, and Magor, Pontypool and St. Mellons Rural Districts are admitted to the Newport Borough Isolation Hospital, Allt-yr-yn, Newport, when accommodation is available. The charge in such instances to the Local Authority concerned is about £3 3s. 0d. per case per week.

In the Rhymney Urban District an ordinary house has been leased for the purpose of providing isolation hospital accommodation. The District Medical Officer of Health reports that although the house has been refurnished, repaired and a bathroom and lavatory added during the year 1927, the arrangement is still quite unsatisfactory as no accommodation is available for the Nursing Staff. During 1928 a few cases of Small Pox were isolated there pending their removal by the County Council to the Small Pox Isolation Hospitals established for that purpose. The accommodation provided is only sufficient for three infectious cases of one sex.

Overcrowding in some portions of the County still renders home isolation difficult and even though increased accommodation has been provided during the year for the isolation of cases of infectious disease, the provisions in the County are still inadequate. Several of the Isolation Hospitals in the County, both as regards accommodation and suitability, have been improved. This has been done in each instance where the County Council have acquired the use of the Hospitals for the purpose of isolating Small Pox cases. There still remains, however, several Isolation Hospitals which are unsuitable for the purpose.

The Medical Officer of Health for the Blaenavon Urban District draws attention to the fact that one of the greatest difficulties experienced in dealing with infectious diseases in his district is the isolation of the infected person. The majority of these cases occur in small badly overcrowded houses with often only one and sometimes two small bedrooms. This means that effectual isolation is impossible and the other members of the household are constantly exposed to infection. The provision of an Isolation Hospital within the district or the joint use of such with an adjoining district would undoubtedly be an asset in controlling the spread of these diseases. The patient could then be removed immediately upon receipt of a notification and the disinfection of clothing and premises carried out.

Regarding the Isolation Hospital of the Ebbw Vale Urban District Council, it has been decided on account of its condition to make arrangements for the isolation of infectious cases elsewhere.

A (2) Small Pox.

In the early months of 1928, owing to a continuation of the severe epidemic of Small Pox which became prevalent in the County in 1927, it was necessary for the County Council to continue to utilise the Isolation Hospitals which were taken over from certain of the Local Authorities for the isolation of Small Pox cases.

The Beeches Isolation Hospital, Abersychan, the wards of which were erected and equipped by the County Council, was in use to its fullest extent during the year.

The Isolation Hospitals of the Abergavenny, Abertillery, Bedwellty and Chepstow Districts, together with the Beeches Hospital gave a total accommodation of 191 beds and 5 cots in Isolation Hospitals within the County for the treatment of Small Pox cases.

However, owing to an abatement in the epidemic later in the year, it was possible to discontinue the use of the Hospitals at Abergavenny, Abertillery, Bedwellty and Chepstow, which naturally resulted in a welcome reduction in the administrative costs.

It was, however, found necessary to make use of the accommodation afforded by the Cardiff and Newport Corporations when the accommodation at The Beeches Hospital became inadequate.

It is intended to increase the accommodation at The Beeches Hospital, and arrangements are being made for the transfer of the Huts and Chalets which were erected by the County Council at the Abergavenny and Chepstow Hospitals. The equipment provided for these buildings is also being transferred. When the arrangements are completed, it is hoped that sufficient accommodation will be available at The Beeches for the isolation of all cases of Small Pox from within the County.

B (1) Tuberculosis.

Tuberculosis cases, both pulmonary and surgical, are treated at the Institutions of the Welsh National Memorial Association, the early cases for sanatoria being dealt with at the Idangwythan Sanatorium, North Wales, and the Talgarth Sanatorium, South Wales, while surgical tuberculosis cases are dealt with at the Glan Ely Hospital, Cardiff, St. Brides Hospital, Pembrokeshire, and at the surgical block of the Llangwythan Sanatorium, North Wales. The hospital cases are treated in the first instance at the Cefn Mably Hospital and at other hospitals of the Memorial Association as occasion arises.

B (2) Maternity.

There is no Maternity Hospital in the County at the time of writing. The arrangements for the opening of the Coldra, near Newport, which has been presented to the County Council by Sir John W. Beynon, Bart, C.B.E., for use as a Maternity Hospital, have been held up owing to the economic conditions of the County.

B (3) Children.

The County has no Children's Hospital, but 24 beds have been reserved at the Royal National Orthopaedic Hospital, London, for the crippled children of Monmouthshire, and these beds are fully occupied by County patients.

INSTITUTIONAL TREATMENT FOR UNMARRIED MOTHERS.

The Maternity Home and Hostel for unmarried mothers is situate at Nantyderry, and during the year under review it has continued to do good work. The County Council makes a contribution towards its upkeep and a grant of £400 was made from County Funds for the year 1927, but during the year 1928 the Hostel Committee, through the Honorary Secretary, Lady Mather Jackson, asked the County Council to reduce their grant by £100, this being due to the favourable financial circumstances of the Hostel.

Generally the girls are admitted one month before their confinement and remain six months after the birth of their child. The ideal that the mother and child must not be separated for at least six months of the infant's life is followed as far as possible. During the stay at the Hostel the mothers are trained to undertake some useful work when they leave, and every effort is made to place them in desirable situations on leaving.

During the year 15 girls were admitted to the Home, and it is noted that the greater number are now in service or doing day work and looking after their babies.

In some instances the infants are adopted, every care being exercised that the homes and their circumstances are in every way suitable.

AMBULANCE FACILITIES.

- (a) The County Council have an Ambulance for the removal of Small Pox patients to the Isolation Hospitals. The Ambulance of the Bedwellty Urban District Council was also used for the same purpose for a part of the year.
- (b) The Newport Borough Ambulance is available for County cases which are admitted to the Borough Isolation Hospital. Ambulances are in use at the Isolation Hospitals of the Bedwellty, Abertillery, Tredegar,

Abersychan and Ebbw Vale Urban District Councils. The two latter are horse-drawn vehicles.

- (c) The Collieries at Ebbw Vale, Six Bells, Cwmtillery, Tredegar, Cwmbran, Oakdale, and the Rhymney Valley have ambulances which are used for Colliery accident cases and under certain arrangements for the transport to Hospital of the dependants of the workers.

Motor Ambulances are also available at the District General Hospitals, while at Monmouth there is a town ambulance available through the generosity of the local division of the British Red Cross Society.

There is a motor ambulance in use in the area of the Bedwas and Machen Urban District Council.

The motor ambulance of the Joint Committee of the Order of St. John and British Red Cross Society, which is kept at Cross Keys, is available for use anywhere in the County for non-infectious and accident cases.

CLINICS AND TREATMENT CENTRES.

The County Council have established 41 Maternity and Child Welfare Centres in the County, and three Ante-Natal Clinics. Full details are given in the County Maternity and Child Welfare Report.

The County Education Committee have provided 10 School Clinics, details of which are set out in the School Medical Inspection Report.

There are no day nurseries in the County.

The 15 Tuberculosis Visiting Stations are detailed later in this Report

There is one Treatment Centre for Venereal Diseases—at the Royal Gwent Hospital, Newport.

PUBLIC HEALTH OFFICERS.

The Public Health staff of the County Council consists of the following whole-time officers:—

County Medical Officer.

County Bacteriologist and Pathologist, who is also the Deputy Medical Officer.

Nine Assistant Medical Officers (engaged on School Medical Inspection and Maternity and Child Welfare work).

County Sanitary Inspector.

Inspectress of Midwives.

Venereal Diseases Inquiry Officer.

Mental Deficiency Inquiry Officer.

31 Health Visitors (engaged on School Medical Inspection and Maternity and Child Welfare work).

13 clerks and 3 laboratory assistants.

PROFESSIONAL NURSING IN THE HOME.

No arrangements for home nursing are made by the County Council.

There are Nursing Associations in the following districts, which maintain nurses by voluntary subscription:—

Newbridge	Devauden	Llantilio Pertholey	Blackwood
Tredegar	Risca	Cross Keys	Pontypool
Panteg	Ebbw Vale	Cwm	Abercarn
Aberbargoed	Abersychan	Rhymney	Caerleon
Goytre	Abergavenny	Christchurch	Monmouth
Llanfrechfa Lower	Llanover	Usk	Trelleck
Llantilio Crossenny	Llangattock-vibon-avel		Tintern

General and tuberculosis nursing is undertaken, with the addition of midwifery in some districts.

The home nursing of infectious diseases is not carried out in any district of the County as a general practice, but has been resorted to in exceptional circumstances.

MIDWIVES.

The number of midwives upon the County Roll at the 31st December, 1928, was 242. Full particulars are given in the County Maternity and Child Welfare Report.

REGISTRATION OF NURSING AND MATERNITY HOMES.

The Nursing Homes Registration Act, 1927, came into operation on the 1st July, 1928. This Act repeals certain parts of the Midwives and Maternity Homes Act, 1926, which only came into operation on the 1st January, 1927. The new Act provides for the Registration and the inspection of Nursing Homes, and the making of Bye-Laws. The County Council are the supervising Authority under the Act, and during the year six applications for registration were received, of which five were previously registered under the 1926 Act. In accordance with the requirements of the Act, and after inspection of the premises, registration was granted in each instance.

The Maternity Homes are situate, one at Tredegar, one at Nantyderry, one at Abergavenny, one at Rumney, one at Bassaleg and one at Tref-ap-Gwilym, Cardiff Road, near Newport.

Bye-Laws were made by the County Council in respect of Nursing Homes, and these were allowed by the Minister of Health in November, 1928. The Bye-Laws deal with the question of the keeping of Registers required under the Act, the notification of infectious diseases, and the notification of births and deaths at the Institutions.

The Act provides for the exemption of certain hospitals and institutions, but this exemption shall only remain in force for one year from the date on which it was granted. One exemption has been granted during 1928, this being in respect of the Monmouth Hospital, Monmouth.

The County Medical Officer has the power to inspect all Nursing Homes.

CHEMICAL ANALYSIS.

Samples of foodstuffs, including milk, butter, margarine, etc., are sent to Mr. G. Rudd Thompson, F.I.C., Dock Street, Newport, who is the Public Analyst appointed for the County.

BACTERIOLOGICAL LABORATORY.

Facilities are offered to all medical practitioners in the County for bacteriological examinations at the County Laboratory, and the services of the Pathologist and Bacteriologist are available for assistance which may be required in the diagnosis of disease.

SANITARY CIRCUMSTANCES OF THE AREA.

WATER SUPPLY.

With the annual rainfall above the average, complaints of shortage of water received were very few.

The work at the Grwyne Fawr Reservoir is now completed except for the dismantlement of the 11 miles of railway which is in progress between the works and Llanvihangel Station.

The reservoir, which is situated in the heart of the Black Mountains of Breconshire, now presents a strange contrast to the busy scene of a year or two back, when over 400 men were employed. The navy village, two miles lower down the valley, is practically deserted, the school, hospital, police station and canteen having been pulled down and only a few scattered buildings remain.

The filling of the Reservoir was commenced in February, 1928, and by March 31st, 160,000,000 gallons of water were impounded. A severe drought then set in, which continued until the following October. The above quantity of water however, although less than half the capacity of the reservoir, ensured an ample supply for the Board's district, and at the end of the drought no less than 60,000,000 gallons was still in store. It was exceedingly fortunate for the inhabitants of the Western Valleys that the filling of the Reservoir was commenced in time to avert what would undoubtedly have been a severe water famine during the summer months, a situation which was experienced in other districts in a less fortunate position.

During October heavy rainfall took place, and the Reservoir was completely filled on November 23rd, remaining practically full until March of 1929.

Another drought has since been experienced—from a waterworks standpoint an extraordinary one—the rainfall over Great Britain for the first five months of 1929 being the lowest ever recorded. Many waterworks authorities are alarmed at the prospect of a shortage of water later on in the year, and in some districts restrictions have already been placed on the supplies. The Abertillery and District Water Board, however, thanks to the large storage at Grwyne Fawr, are in an excellent position, and could maintain a full supply until October next even if no further rain fell.

The greater part of the Board's district is now supplied with Grwyne Fawr water, including Pontllanfraith and Oakdale, for which water was formerly purchased from neighbouring authorities.

The population of the Board's area, about 100,000 in number, are now assured of an ample supply of water for many years to come, and are to be congratulated on the completion of the scheme, which has already proved of inestimable value to the district.

The Rhymney Valley Water Board, which is a constituent authority of the Taf Fechan Supply Board, came under obligation as and from the 1st April, 1928—the date when the Taf Fechan Reservoir was completed and filled with water—to take or pay for a minimum quantity of 1,750,000 gallons a day, the maximum being 4,200,000 gallons a day. For the greater part of the year the Board's local supplies, together with the minimum supply referred to are sufficient for the needs of the area. In any period of drought, however, the Local Supplies practically cease, and the area becomes almost wholly dependent on the Taf Fechan Supply. The minimum was exceeded on 97 days during the year and no difficulty was experienced in obtaining any supply necessary from the Supply Board. The principal point of supply is at Trelewis, to which point the Rhymney Valley Water Board has laid a 24-inch main from Gellygaer. This ensures an adequate supply to Bargoed, Aberbargoed and the southern part of the area. Another important supply is that from the Upper Neuadd Reservoir into the Rhymney Bridge Reservoir, supplementing the local supply. The higher levels depend on this source, and sufficient water can be retained in the Reservoir for all purposes and to meet any emergency. Having regard to the 3,714,000 gallons capacity of the Taf Fechan Reservoirs, and the daily yield of 16,000,000 gallons a day, after provision of compensation water, there is little possibility of any shortage of water in the area of supply of the Board.

The Medical Officer of Health to the Blaenavon Urban District Council again reports that the Local Council should take steps to provide the inhabitants of certain farms in the Garnyrerw area with an adequate supply of pure water, and

that a filter bed should be provided at the Bunkers and a larger filter bed near Edmunds' Spring.

The Council should also consider whether it is possible to add to the number of sources of supply and to further increase the storage capacity of certain of their reservoirs, so that it will not be necessary, even in the driest season, to give the inhabitants an intermittent supply of pure water.

The Council applied to the Ministry of Health for sanction to erect an unclimbable fence around Reservoirs 3 and 4, but sanction has not been received to proceed with the work.

It is to be regretted that during the summer months the supply of water had to be again curtailed and the intermittent supply resorted to. The disadvantages of this system are obvious, even in districts where storage cisterns are provided in dwelling houses. The flushing of water closets, drains and sewers cannot be efficiently carried out with a curtailed water supply, and as this curtailment usually takes place during the summer months, complaints are numerous, particularly in respect to indoor water closets. It is to be regretted that at one period of the year the shortage became so acute, that proceedings were threatened against persons for wasting water. The difficulty in respect of this matter is as to what constitutes wastage. If, as appears to have been considered the case, the washing down of yards and pavements by householders is a waste of water, then a serious and somewhat curious position has arisen—serious from a health standpoint inasmuch as both yards and pavements require cleansing with water at least once a week to keep them reasonably sweet and clean, and curious from the fact that dirty pavements are an offence and dirty yards a nuisance and a menace to health.

The shortage of water is also keenly felt at the slaughterhouses and cowsheds, where, if cleanliness is to be maintained, an abundant supply of pure water must always be available.

Work is now in progress to render the Blaenavon Council's No. 4 Reservoir watertight. This work is being carried out under contract by the Francois Cementation Co., and is understood to be progressing satisfactorily, and should it prove successful, will result in this Reservoir being put into commission during the coming year, which should to a large extent, augment the Town's principal supply.

The Parishes of Llanvaches, Penhow, Langstone, Llanwern and Christchurch are partly supplied from the Newport Corporation mains and partly by springs and wells. Magor and Redwick are supplied from the Severn Tunnel Waterworks. This water is very hard. Many complaints have been received during the past year from residents in these two parishes about the insufficient quantity of water delivered through their service pipes. On investigation it was found that the pipes conveying it had been in use for over 30 years and were badly

corroded internally by deposits. It is now proposed by the Great Western Railway Company to lay a new 4-in. main from the Sudbrook Pumping Station to the Magor Village, instead of the old 3-in. main. When this is done and new supply pipes of greater calibre are laid the water supply should be much improved. The parishes of Nash, Goldcliffe, Whitsun and Bishton (part) are supplied from the Llanwern Brook (Monk's Ditch), rain water tanks and reens. In summer this supply may partially fail, and it is liable to pollution. The rainfall during 1928 was below the average, and a water shortage was reported from Nash. The scheme for supplying Newport Corporation water for the village of Bishton is now nearing completion. The consideration of an improved water supply to the parishes of Nash and Goldcliffe is also receiving attention. It is hoped to obtain a sufficient supply from the Newport Corporation in the near future.

The Shon Sheffrey spring, in the area of the Tredegar Urban District Council, is reported to be in every way satisfactory. This spring supplies the Tredegar Urban Area, and a considerable portion of the Bedwellty Urban District.

The Rural District Councils are paying attention to the water supplies in their areas. Samples of water from local supplies are periodically taken for analysis, these in many instances being examined at the County Laboratory.

In the Abergavenny Rural District the Parish Council of Govilon complained to the Abergavenny Rural District Council of the water supply to a portion of the parish. Meetings were held and schemes were evolved, but the two Councils could not agree upon a scheme which would be suitable. The Parish Council made complaint to the County Council, and it was decided to hold an Inquiry. Samples of water were taken from the various sources of supply, and these were analysed, but some of the water was proved to be unsuitable for domestic purposes owing to it being seriously polluted. There is no question that the affected portion of this parish is in need of a proper water supply, and furthermore, suitable water can be obtained. The Councils concerned should proceed with a scheme as soon as possible.

The Medical Officer of Health to the Ebbw Vale Urban District Council states that the water supply is copious and constant. This is taken from two reservoirs situated on the Ilangynidr Mountain, and conveyed to the town by cast iron gravitating mains. The water is of a soft character, and is therefore liable to plumbo solvent actions in contact with lead, but the use of lead pipes to carry the water supply has been almost entirely superseded by galvanized iron, which obviates the risk of contamination from this cause.

RIVERS AND STREAMS.

The rivers in the agricultural portion of the County are not seriously polluted with the exception of the lower portion of the river Usk.

The Afon Llwyd still serves as a sewer for the Eastern Valley, practically the whole of the sewage from the districts situate upon its banks is discharged direct into the river. As the Afon Llwyd passes through several important and thickly populated areas, it is obvious that the situation is far from satisfactory, and a scheme to remedy the serious pollution of this river should be proceeded with.

In the Rhymney, Sirhowy and Western Valleys the construction of the main trunk sewers and the completion of the necessary subsidiary sewers by the Local Authorities have had a very marked effect upon the rivers which flow through these Valleys, and there is at present very little pollution by crude sewage.

In some of the districts Bye-Product Plants and Coal Washeries have been established at the collieries, and some pollution of the rivers is caused. With the increase in the number of these plants more attention should be paid by the Local Authorities to this matter and so avoid pollution becoming serious.

It is again necessary to draw the attention of several of the Local Authorities to the practice of some of the inhabitants of depositing house refuse in close proximity to the river banks. Ample facilities for the collection of the refuse is afforded by the Local Authorities concerned, and pressure should be brought to bear upon the offenders with a view to this objectionable practice being discontinued.

As noted in last year's report, the County Sanitary Inspector has again had cause to report that in some districts slaughterhouses, pig styes, etc., are drained direct into the rivers.

DRAINAGE AND SEWERAGE.

During the year good progress was made with the extensions of the subsidiary sewers of the six Constituent Authorities of the Rhymney Valley Sewerage Board. The Gellygaer Council completed the construction of the Cylla and Deri Valleys Sewerage Schemes which were connected to the trunk sewer at Ystrad Mynach and Bargoed respectively. Connections were also afforded at Hengoed, Tir-y-berth, Gilfach, Brithdir, Tirphil and Pontlottyn, and the Council are proceeding with the small extensions necessary to divert the sewage from the existing sewerage beds into the trunk sewer. The Bedwellty Council were afforded seven connections for the Pengam and Fleur-de-lys Districts, and the sewage from these districts now enters the trunk sewer. A Ministry of Health Inquiry was held on the 9th November, 1928, on the application of the Council for a loan for the construction of subsidiary sewers at Aberbargoed. The Board supported the application, which was granted by the Ministry, and the construction of the sewers is now being proceeded with. With reference to the Caerphilly Council, arrangements were completed for the whole of their sewers, which formerly discharged at the sewerage beds, Gwaen-y-barra, to be

connected to the trunk sewer. New sewers were laid in the parish of Van by Cardiff Rural Council and connected to the Caerphilly Council Sewers, and by agreement the sewage from this parish now enters the trunk sewer. In the latter part of the year negotiations were opened between the St. Mellons Rural District Council and the Board with a view to connections being afforded for the drainage of the parish of St. Mellons. When full use is made of the connections above referred to, the pollution of the river Rhymney will be materially decreased. The improvement in the river is already most marked, particularly at and to the south of Bedwas where formerly at low water the river banks were strewn with sewage.

The Western Valleys, as well as the Sirhowy Valley, are sewered by the Western Valleys' Sewerage Board's main trunk sewer. Practically the whole of the subsidiary sewers in the Urban Districts through which the main trunk passes are now connected to the sewer.

The Rhymney Valley is similarly served by means of the Rhymney Valley Sewerage Board's main trunk sewer.

In each of these valleys special arrangements have been made to deal with the surface water. Special drains for dealing with surface water have been constructed by the Local Authorities; thus serious flooding of the main sewers is avoided.

In the Eastern Valley, with the exception of the Panteg Urban District, no arrangements have been made for dealing with crude sewage. The sewage in the Panteg Urban District in some instances is conveyed to settling tanks before being turned into streams or the Afon Llwyd.

As there is no general scheme for dealing with sewage in the Eastern Valley, the subsidiary sewers in each area discharge into small streams or direct into the Afon Llwyd.

At the time of writing a scheme is being prepared by the joint Councils of the Llanfrechfa Upper and Llantarnam Urban Districts for dealing with the disposal of sewage in these two districts.

Nothing further has been done to improve the position in the village of Hafodyrynys. That portion of the village in the Abersychan Urban District still remains unsewered, and something should be done by this Council to drain the houses in their area. Provision could be easily made for these houses as there is a subsidiary sewer which connects to the Western Valley Main Trunk Sewer within reasonable distance. There are also a few houses in the Abertillery and Abercarn portions of the village without drainage facilities, and a scheme for dealing with this matter was placed before the Ministry of Health with a view to the work being carried out, but the necessary sanctions were not received by the Local Authorities concerned.

In the Magor Rural District the Medical Officer reports that a septic tank system of sewerage has been installed to deal with the sewage from a number of new houses at Llanwern Garden Suburb.

Subsidiary sewers in the village of Rumney, in the St. Mellons Rural District, are all connected up to the Ystradfadog main trunk sewer, and the Medical Officer reports that during the year 1928, the main sewerage scheme for Malpas which was commenced in the previous year was completed. The first portion of the scheme was carried out in 1926. The scheme provides for a low level sewer to drain the houses along the County road between the Newport Borough Boundary and Blaen-y-pant. The sewer empties direct into the sewers of the Newport Corporation. The remainder of this area is sewered to a covered underground storage tank situate in the closure to the south of Malpas Church. The sewage is held up in the tanks for periods of three hours before to three hours after high water mark, and is then discharged into the Newport Corporation Sewer at the Borough Boundary, and an electrically driven automatic valve controls the discharge. Sewerage schemes for the parishes of St. Mellons, Michaelstone - y - vedw, and Machen Lower have been submitted to the Ministry for sanction. These have to be constructed under the Rhymney Valleys Sewerage Board Act.

The Magor Council propose laying a sewer to deal with the sewerage of the 60 new houses on the Caerleon Road which are now draining into separate cesspools. Many complaints have been received regarding the overflow from the cesspools which continually finds its way into the ditch on the side of the County main road. It is proposed to discharge this sewage when collected into the River Usk and have it controlled by means of a penstock. The approximate cost of this work is £1,150, and application has been made to the Ministry of Health for the necessary sanctions.

CLOSET ACCOMMODATION.

In conjunction with the laying of the new subsidiary sewers in the various districts, the work of converting privies and earth closets to water closets is still being carried out, and from the reports received from the District Medical Officers, it is noticed that considerable progress has been made in this respect during the year 1928.

In the Blaenavon District the Sanitary Inspector reported that there were in several cases insufficient closet accommodation, this being where one closet served the needs of two or more houses, and he was instructed by his Council to serve the necessary notices to remedy this.

In the St. Mellons District all the houses erected during the year have been provided with water closets and in addition it has been possible to convert into water closets 23 pail closets or privies.

SCAVENGING.

The systems of collection of house refuse vary according to the circumstances prevailing in the various districts. In practically all the districts collections are made two or three times a week. In some areas the work is carried out by contract, but in several of the industrial areas the work is directly carried out by the Councils. Prior to 1928 in two areas, Abertillery and Pontypool, refuse destructors were used to deal with the whole of the refuse collected in the districts, but in each of these two areas, the use of the destructors has been discontinued and the refuse is now being tipped on suitable land.

In many of the districts motor lorries have been substituted for the horse-drawn vehicles previously used, practically all of which are fitted with covers so as to avoid unnecessary dust arising during the collection.

Reference is again made in some of the reports of the District Medical Officers of Health to the increasing difficulty of obtaining suitable land for tipping purposes, which is the means adopted by the Local Authorities. This difficulty is acute in many of the industrial areas, and it appears to become more and more difficult year by year, this being due to the very narrow valleys in which these areas are situate.

The Medical Officer for the Rhymney Urban District states in his report that it is still a common practice with a large number of householders to deposit refuse on the highways, lanes, etc. He adds that there is no need for this objectionable practice, as the scavenging cart passes every house each day. This state of affairs is not confined to the Rhymney District alone, as several Medical Officers for other districts comment upon this unsightly habit, which is not only a menace to health but also adds to the cost of house refuse collection.

In the areas where pail closets are still in use, the contents are removed by means of special sanitary tanks. The work is usually done during the night or in the early hours of the morning.

There is also considerable room for improvement at some of the refuse tips in the County. At present the refuse is tipped from carts, and receives no further attention. It is the common practice for children and adults to visit these tips for the purpose of collecting rags, coal, etc., and there is, therefore, the danger of the spread of disease. More control should be exercised over these tipping grounds, which should be periodically cleaned. Comment has been made on this subject for a number of years, but there does not appear to be any material improvement.

SANITARY INSPECTIONS OF DISTRICTS.

It is again observed from the reports received from the District Medical Officers, that considerable activity has been displayed by the Sanitary Inspectors

in their respective districts. Inspections of premises under the various Public Health and Housing Acts have been made, and where nuisances or defects are noted, informal and statutory notices have been served. In the majority of cases the notices were complied with, and in very few instances were legal proceedings necessary.

Smoke Abatement.

Very little comment is made by the Local Medical Officers regarding this subject, and although all the reports are not yet to hand, it would appear that the only action found necessary during the year in regard to smoke abatement was in respect of a few dwelling houses. There is nothing provided in the Public Health (Smoke Abatement) Act, 1926, which would allow a more effectual means of dealing with the domestic smoke nuisance. Numerous complaints are received regarding domestic smoke, and it is unfortunate that the Local Sanitary Inspectors have not more definite instruction upon this point.

Schools.

The sanitary condition of the schools is subject to district sanitary inspections, while the School Medical Officers and the County Sanitary Inspector also deal with it at their periodical visits to the schools. With regard to the spread of infectious diseases amongst school children, close co-operation exists between the District Medical Officers and the County Medical Officer. The disinfection of schools following outbreaks of infectious disease is carried out by the County Sanitary Inspector, the whole of the interior and the lavatory accommodation being thoroughly sprayed with a suitable solution of " Kerol " disinfectant.

HOUSING.

Progress has been made during the year with the various schemes in hand for the erection of houses. The following table shows the progress made in the construction of new dwellings by the District Councils, and also by private enterprise under the Housing Acts:—

District.	Total Number of Houses completed during year ended 31st Dec., 1928		Total
	By Local Authority.	Private Enterprise.	
URBAN.			
Abercarn ...	—	—	—
Abergavenny ...	20	14	34
Abersychan ...	88	7	95
Abertillery ...	—	—	—
Bedwas and Machen	20	—	20
Bedwellty ...	64	—	64
Blaenavon ..	—	—	—
Caerleon ..	—	8	8
Chepstow ..	—	1	1
Ebbw Vale ...	—	2	2
Llanfrechfa Upper	—	14	14
Llantarnam ..	20	8	28
Monmouth ..	—	3	3
Mynyddislwyn ...	14	—	14
Nantyglo and Blaina	—	—	—
Panteg ..	—	35	35
Pontypool ...	6	4	10
Rhymney ..	—	—	—
Risca ..	—	—	—
Tredegar ..	30	—	30
Usk ..	—	1	1
RURAL.			
Abergavenny ...	—	5	5
Chepstow ...	—	18	18
Magor ...	—	—	—
Monmouth ...	—	6	6
Pontypool ...	—	5	5
St. Mellons ...	—	711	711

The Medical Officer of Health for the Ebbw Vale Urban District states that during the winter of 1928-29, the 65 huts in occupation at the Steelworks, The Woodland Village, were blown away by gales and rain storms, and the occupants rendered homeless and exposed to severe hardship and loss. These were huts acquired from the Army Disposal Board and erected as a temporary expedient when post war overcrowding was most acute. In the year 1923, at the request of the Council, the Medical Officer made a detailed inspection of these huts and reported thereon. The report was included in the Annual Report for the District of that year. Many of the huts were even then unfit for habitation and in some cases immediate attention and repairs were necessary, and in many cases the Medical Officer condemned them as unfit for habitation.

WORK OF THE COUNTY SANITARY INSPECTOR.

Mr. J. Jenkin-Evans, A.R.S.I., M.S.I.A., the County Sanitary Inspector, assists the County Medical Officer in his sanitary investigations. Where the local Council is involved, he is accompanied by the Sanitary Inspector for the district concerned. Mr. Evans is also qualified as an Inspector of Meat and other Foods.

His duties may be summarised as follows:—

Investigations of—

- Sanitary conditions of Schools.
- Pollution of Rivers and Streams.
- Causation of Outbreaks of Infectious Disease.
- Water Supplies of the County.
- Tuberculosis in Cattle.

Nuisances arising from—

- Drainage, Sewerage and Sewage Disposal.
- Refuse Collection and Disposal.
- The Keeping and Slaughtering of Animals, etc.
- Offensive Trades.

Inspections of—

- Dairies and Cowsheds.
- Diseased Foodstuffs (at the request of the District Sanitary Inspectors).
- Dwellings where insanitary conditions, overcrowding, etc., are reported.
- Home conditions of persons suffering from Tuberculosis, etc.
- Taking of samples of water, milk, and sewage effluent for bacteriological and chemical examination at the County Laboratory; the disinfection of premises; attendance at Enquiries, etc.

During the year all schools closed on account of infectious disease were disinfected.

Under the County Medical Officer's scheme for securing a clean and wholesome milk supply, the County Sanitary Inspector had much of his time taken up with milk investigations of various kinds, as well as with the collection of samples under the terms of the Milk (Special Designations) Order, relating to "Grade A" and "Grade A" (Tuberculin Tested) Milk licenses.

INSPECTION AND SUPERVISION OF FOOD.

MILK SUPPLY.

The scheme inaugurated by the County Medical Officer for the taking of "informal" samples of milk sold in the County is still being operated. In con-

junction with the scheme, Part IV. of the Milk and Dairies Order, 1926, which deals with the health and inspection of cattle, is carried out. During the year 315 "informal" samples of milk were taken, which is an increase of 102 over the figure for the previous year, which was 213. As in previous years, it can again be said, that the working of the scheme has had far reaching effects upon the purity of the milk supply in the districts in which operations have so far been carried out. The scheme has now been in operation for a number of years, and although at the outset difficulty was experienced in obtaining the co-operation of milk vendors and the producers, it can now be recorded that the difficulties have been overcome and that the scheme is appreciated by those concerned with the milk trade generally.

As stated in previous reports the scheme is operated as follows:—

One sanitary area is selected at a time and samples taken from every milk producer and milk seller in that district. The samples are collected by the County Sanitary Inspector, accompanied by the District Sanitary Inspector, and are examined at the County Laboratory by the County Bacteriologist. In addition to the bacteriological examination for evidence of tubercle, zymotic diseases and dirt contamination, animal inoculations are made for the purpose of definitely ensuring against any possible infection by Tuberculosis. Should this be found to be present, the farm producing the milk is visited and the herd submitted to veterinary examination, individual samples being taken from any cow regarded as suspicious. The milk from suspected cows is ordered to be excluded from that of the herd until the bacteriological examination has been made. In the event of an individual sample proving tuberculous, arrangements are made for the slaughtering of the animal under the Tuberculosis Order, 1925, in which case the District Sanitary Inspector is asked to be present at the slaughtering so that the carcass, or parts of the carcass, where necessary, can be condemned as unfit for human consumption. In such cases where the Sanitary Inspector is not qualified to deal with meat inspection, a Veterinary Inspector or the County Sanitary Inspector has attended at the slaughtering of the animal. The tuberculin test is employed in cases where bacteriological examination of the sample has proved to be suspicious but has not shown definite evidence of Tuberculosis, also a close watch is kept upon the cow before its milk is again allowed to be mixed with that of the herd.

With regard to the slaughter of infected animals, it has been found that action taken under the Tuberculosis Order by the Veterinary Inspectors appointed under the Diseases of Animals Acts is better than utilising the Milk and Dairies (Consolidation) Act, 1915; much overlapping is thus eliminated.

Copies of all reports upon the bacteriological examination of "informal" samples are sent to the local Sanitary Inspectors, and where evidence pointing to want of care in handling the milk after it has left the cow, or to its contamination in other ways is reported, a warning is sent to the offender by the Clerk to the

local Sanitary Authority, which in practically every case has had the effect of an immediate improvement in the condition of the milk.

The following districts were inspected during the year under review:—

Urban.

Chepstow

Bedwellty

Pontypool.

Bedwas and Machen.

Rhymney

Panteg.

Risca

Abercarn.

Caerleon.

Rural.

Abergavenny

St. Mellons.

Monmouth

Further details of the samples taken in 1928 will be found in the report of the County Bacteriologist.

From the reports which have been received from the districts the Dairies, Cowsheds and Milkshops have been periodically inspected, and there is improvement in the general condition of these premises, but there is still room for further improvement.

In some districts of the County trouble is experienced in obtaining general improvements in the structural condition of Cowsheds on account of the owners who are not the tenants not being prepared to expend anything upon this work. However, although some progress has been made in reconstruction, every effort is still being made to instill into these cowkeepers the absolute necessity for scrupulous cleanliness, and education on this matter has been attempted rather than legislation, with beneficial results.

Arrangements have been made during the year with the Chief Constable for the notification of all animals intended to be slaughtered under the Tuberculosis Order, 1925. The date and time of slaughter is given, and the County Sanitary Inspector has attended for the purpose of examining the carcase, so as to ensure that only meat fit for human consumption shall be placed upon the market.

Milk (Special Designations) Order, 1923.

The number of persons at present licensed by the County Council under this Order for the production of " Grade A " milk is as follows:—

Producers and Retailers	...	...	4
Producers only	...	...	2

The six farms producing Grade " A " milk are periodically visited by the County Sanitary Inspector and a high standard of cleanliness is maintained as a result. The farms are situated, two at Chepstow, two at St. Mellons, one at Gromont, and one at Rogerstone. Samples are taken at various periods during the course of delivery for bacteriological examination. Where the report of the County Pathologist has proved unsatisfactory and not in accordance with the standard laid down for Grade " A " milk, a special visit is paid to the farm with a view to the necessary improvement. It is pleasing to note, however, that this has only been necessary on very few occasions.

Samples are taken on behalf of the Ministry of Health from the retailers of Grade " A " (Tuberculin Tested) milk in the County. The samples are analysed at the County Laboratory and the cost is defrayed by the Ministry of Health. During the year 14 samples were taken. The Ministry of Health are the Licensing Authority in regard to Certified and Grade " A " (Tuberculin Tested) milk, and arrangements have been made with the Welsh Board of Health that prior to the granting of a licence the Cowsheds at the Farm shall be approved by the County Medical Officer, acting in conjunction with the Ministry, so that an even standard for cowsheds shall obtain in the County.

MEAT, etc.

The table giving the amount of unsound foodstuffs condemned and destroyed in the various districts is attached, and it will be noticed from the figures that great attention is being given to this very important section of public health work.

Of the 31 Sanitary Inspectors in the Administrative County, only 9 hold a special certificate, and are qualified Inspectors of meat and other foods. The districts whose Sanitary Inspectors are in possession of the certificate for meat and food inspection are: Bedwellty (2), Abertillery, Mynyddislwyn, Risca, Ebbw Vale, Blaenavon, Tredegar, and Rhymney.

The following table shows the quantities of meat and other foods condemned in the various Urban and Rural Districts during the year:—

DISTRICT	Fish.	Meat.	Bottled and Tinned Goods	Bacon.	Offal, etc.	Cooked Meat.	Fruit.	Miscellaneous (Vegetables chiefly).
URBAN.								
Abercarn ...	—	522 lbs.	190 tins	170 lbs.	—	—	—	—
Abergavenny ..	—	6 lbs.	26 tins	—	5 lbs.	—	—	—
			150 tins					
Abersychan ...	—	525 lbs.	2 jars	—	—	—	—	—
Abertillery ...	1 Barrel	535 lbs.	61 tins	—	12 plucks	11 lbs.	—	64 eggs
	Sprattts				9 lungs			—
	112 lbs.				12 livers			
Bedwas and Machen...	—	680 lbs.	117 tins	—	148 lbs.	41 tins	51 tins	—
Bedwellty ...	14 lbs.	220 lbs.	3004 lbs.	10 lbs.	166 lbs.	194 lbs.	280 lbs.	45 lbs.
	140 lbs.							
Blaenavon ...	3 Barrels	691 lbs.	363 tins and jars	—	436 lbs.	—	—	3 tons potatoes
								15 doz. packets of sugar substitute
Caerleon ...	—	—	—	—	—	—	—	—
Chepstow ...	—	—	19 tins	—	—	—	—	—
Ebbw Vale ...	376 lbs.	1186 lbs.	438 tins	48 lbs.	335 lbs.	24 lbs.	150 lbs.	160 lbs & 2 bags cockles
Llanfrechfa Upper...	40 lbs.	—	—	—	—	24 lbs.	—	8 cwt. potatoes
Llantarnam ...	—	—	—	—	—	—	—	—
Monmouth ...	—	109 lbs.	10 tins	61 lbs.	—	7 lbs.	—	—
Mynyddislwyn	—	7089 lbs.	430 tins	—	5428 lbs.	—	—	—
Nantyglo and Blaina...	—	70 lbs.	12 lbs.	—	—	—	—	—
Panteg ...	—	277½ lbs.	165 bottles and tins	158½ lbs.	—	19½ lbs.	26 lbs.	24 packets
Pontypool ...	25 boxes	251 lbs.	630 tins	101 lbs.	58 lbs.	19 lbs.	—	24 lbs. cheese
								51 lbs. butter
								36 doz. eggs
Rhymney ...	—	3 heads	193 tins	5¼ lbs.	338 lbs.	—	7 lbs.	32 lbs. flour
		609 lbs.	2 pots					—
Risca ...	—	219 lbs.	622 tins	—	52 lbs.	—	—	—
Tredeggar ...	422 lbs.	4626 lbs.	—	—	2303 lbs.	—	10 lbs.	11 lbs. mushrooms
								35 cwt. of potatoes
Usk ...	—	—	—	—	—	—	—	—
RURAL.								
Abergavenny .	—	—	—	—	—	—	—	—
Chepstow ...	—	—	—	—	—	—	—	—
Magor ...	—	—	—	—	—	—	—	—
Monmouth ...	—	—	—	—	—	—	—	—
Pontypool ...	—	—	—	—	—	—	—	—
St. Mellons ...	—	4154 lbs.	—	—	—	—	—	—

TABLE SHOWING THE NUMBER OF SAMPLES TAKEN IN EACH DISTRICT

[illegible]

Some samples taken in Mynyddislwyn area are included in the Bedwellty area return.

At present there is not in any district of the County a Public Abattoir. In most districts there are numerous small slaughterhouses, very few of which can be said to be really suitable for the purpose. In several of the districts the Medical Officers of Health and the Sanitary Inspectors have recommended to their Councils the desirability of providing Public Slaughterhouses which would be under the direct control of the Local Authority. Difficulty is experienced by practically all the Sanitary Inspectors who are responsible for the inspection of meat in their area, in carrying out in a satisfactory manner this important branch of their public health duties. Efficiency in meat inspection can only be obtained by the Inspector being present during the actual slaughter of the animal and the dressing of the carcase, when the organs, etc., can be examined. Owing to the number of slaughterhouses in the district and at which slaughtering is invariably carried out at the same time, it is impossible for an inspector to be present at more than one, and therefore a proper and systematic inspection of the animals slaughtered in the district cannot be carried out.

A difficulty also arises owing to the occasional slaughter of animals at places other than slaughterhouses.

It is obvious that the provision of a Public Abattoir would tend greatly to eliminate the difficulties mentioned. All the slaughtering would be centralised, and systematic and proper supervision could then be obtained, the risk to the consumer lessened and the purity of the meat improved by being slaughtered, cooled and stored under hygienic and wholesome conditions.

The provisions of the Public Health (Meat) Regulations have been applied as far as possible in the districts of the County, and greater attention is now being paid to the storage and handling at Meat Shops, upon Stalls, Vehicles and other places where food is prepared. The rigid enforcement of these Regulations has had the desired effect, and there is a marked improvement.

SALE OF FOOD AND DRUGS ACTS.

At the meeting of the Works and General Purposes Committee, held on the 13th July, 1920, it was decided that the County Medical Officer should exercise general supervision over the action to be taken in pursuance of the Acts and Regulations under the Sale of Food and Drugs Acts, and that he, the County Analyst, and, if necessary, the Clerk, should confer as to the details necessary to secure observance of the Acts and Regulations.

The Administrative County is divided into three districts for the purposes of these Acts, as follows:—

District “ A ” under the supervision of Inspector T. H. Lewis, with an assistant, and comprising the Municipal Boroughs of Abergavenny and Monmouth, the Urban Districts of Abersychan, Blaenavon, Llanfrechfa Upper, Llantarnam, Panteg, Pontypool and Usk, and the Rural Districts of Abergavenny, Monmouth and Pontypool.

District " B," under the supervision of Inspector T. R. Davies, with two Assistants, and comprising the Urban Districts of Abercarn (part), Abertillery, Bedwellty, Ebbw Vale, Mynyddislwyn (part), Nantyglo and Blaina, Rhymney, and Tredegar.

District " C," under the supervision of Inspector J. R. Gamble, with an Assistant, and comprising the Urban Districts of Abercarn (part), Chepstow, Llantarnam, Mynyddislwyn (part), and Risca, and the Rural Districts of Chepstow, Magor and St. Mellons.

During the year, 939 samples were examined by the County Analyst, Mr. G. R. Thompson, F.I.C., F.C.S., details of which are given in the report following:

The following schedule gives details of the samples taken for analysis and in which action was taken, arranged according to the respective districts:—

District in which sample was taken.	Nature of Sample.	Extent of Adulteration, etc. of Sample.	Result of Police Court Proceedings, etc.
Abercarn	Milk	3.88% added water	Cautioned by the Clerk.
"	"	3.54% added water	Cautioned by the Clerk.
"	"	12.12% added water	Dismissed.
Abergavenny	"	5.67% deficient in fat	Cautioned.
Abersychan	"	4.33% deficient in fat	Cautioned.
Abertillery	"	14% added water	Fined £3 3s. 0d.
Bedwellty	"	16% deficient in fat	Case withdrawn.
Blaenavon	"	5.06% added water	Fined £5.
Caerleon	"	34% deficient in fat	Fined £1.
"	"	12.33% deficient in fat	Fined £1.
"	"	18% deficient in fat	Fined £1.
Llanfrechfa Upper	"	2.67% deficient in fat	Cautioned.
Monmouth	"	48.67% deficient in fat	Dismissed.
"	"	1.67% deficient in fat	Cautioned.
"	"	3.33% deficient in fat	Cautioned.
"	"	9.33% deficient in fat	Dismissed.
"	"	15.67% deficient in fat	Dismissed.
"	"	16% deficient in fat	Dismissed.
Nantyglo and Blaina	"	9.06% added water	No conviction. Ordered to pay £3 3s. 0d. costs.
"	"	7.77% added water	No conviction. Ordered to pay £3 3s. 0d. costs.
Pontypool	"	10% added water	Dismissed.
"	"	6.67% deficient in fat	Cautioned.
"	"	13% deficient in fat	Dismissed.
Tredegar	"	14% deficient in fat and 2% added water	Cautioned. " Appeal to cows " samples taken.
"	"	4.59% deficient in solids not fat	" Appeal to cows."
"	"	2.33% deficient in fat	" Appeal to cows."
"	"	45.33% deficient in fat	" Appeal to cows."
"	"	0.71% deficient in solids not fat	" Appeal to cows."
"	Skimmed Milk	8.74% added water	Cautioned.
"	"	3.80% added water	Cautioned.
St. Mellons Rural	Pepper	35% maize starch	Fined £1.

The report of the County Analyst for the year is as follows:—

“ I have analysed 939 samples during the year which have been submitted to me from the following sources:—

From the Inspector in Division “ A ”	...	...	325
„ „ „ „ „ “ B ”	...	...	282
„ „ „ „ „ “ C ”	...	...	332

Included in the above, 869 were official samples, and the remaining 70 were unofficial or trial samples.

Of this total number, 662 have been milk samples, and of these 28 have been found to be below the minimum standards laid down by the Sale of Milk Regulations, 1901 and 1912, amounting to 4·41% of the total number of milk samples received. Ten samples contained added water to the extent of 14·00, 12·12, 10·00, 9·06, 7·77, 5·06, 4·59, 3·88, 3·41, and 0·71% respectively, whilst 17 samples were deficient in fat to the extent of 48·67, 45·33, 34·00, 18·00, 16·00, 16·00, 15·67, 13·00, 12·33, 9·33, 6·67, 5·67, 4·33, 3·33, 2·67, 2·33, 1·67% respectively, and one sample was deficient in fat to the extent of 14·00% and in addition contained 2·00% added water.

No case occurred of preservatives or added colouring matter being found, so that we have, on the whole, a satisfactory state of affairs upon which to report as to the milk supply.

Classified in my usual manner, the details for the year are as under:—

According to content of fat:

Under 3%	3 to 3·49%	3·5 to 3·99%	4 to 4·49%	4·5% and over.
18	292	260	73	19

According to content of solids-not-fat:

Under 8·5%	8·5 to 8·69%	8·7 to 8·89%	8·9 to 9·09%	9·1% & over
11	188	227	180	56

The average composition of all samples analysed for the year is:—

Fat, 3·52% ; Solids-not-fat, 8·78% ; Total solids, 12·30%.

The average composition is quite satisfactory, and compares well with that found during the previous years, as will be seen from the following table:—

Year.	Fat.	Solids not Fat.	Per cent. of Adulteration.
1919	3.73%	8.74%	5.07%
1920	3.58%	8.61%	4.38%
1921	3.52%	8.84%	5.20%
1922	3.67%	8.84%	4.60%
1923	3.66%	8.88%	4.08%
1924	3.59%	8.87%	4.81%
1925	3.57%	8.90%	4.26%
1926	3.63%	8.82%	5.97%
1927	3.62%	8.77%	3.81%

Three samples of separated milk were analysed during the year, and of these, two samples were found to contain added water to the extent of 8.74% and 3.80% respectively. From enquiries made it was learned that it is the custom in certain quarters to add a small quantity of water to milk previous to removing the fat by means of the centrifuge as by so doing a more perfect separation of the milk fat is obtained. The practice must naturally be strongly condemned where the separated milk is subsequently sold for human consumption.

Condensed Milk.—Two samples of Condensed Milk were examined and found to conform to the requirements of the Public Health (Condensed Milk) Regulations, 1923 and 1927.

Cream.—The cream samples, six in number, were all perfectly satisfactory as regards composition and were free from preservatives in any form.

Butter.—The specimens of butter examined during the year numbered 31, and all were free from admixture with foreign fats and in no case was water present in excessive amount, whilst preservatives were entirely absent from each sample.

Lard.—Twenty-one samples of lard have been analysed and all proved to be perfectly genuine and free from preservatives, and the four samples of Margarine were also satisfactory in every way.

Flour.—There have been sixteen samples of flour including self-raising flours, all of which I have passed as being perfectly satisfactory. Wheat of excellent quality was used throughout, and in those samples where aerating agents had been employed no trace of arsenic or other deleterious ingredients had been thereby introduced.

Rice.—The facing of rice appears to be practised to a less extent than formerly, and the great majority of samples of this grain examined during the year were found to be entirely free from either facing or polishing ingredients, and these, when present, were in such minute quantity as to be negligible.

Pudding Stuffs. As in previous years all samples classified as pudding stuffs have been most carefully examined for the presence of arsenic, and in practically every case they have been found to be entirely free from any trace of arsenic and no sample has been found to exceed the very small limit imposed, i.e., one hundredth of a grain of arsenic per pound.

Pepper.—A considerable number of pepper samples, 26 in all, were submitted for examination, and of these 25 were found to be genuine and of good quality, but one sample was very seriously adulterated by the addition of 35% of maize starch, and the proportion of this quantity of foreign ingredient is undoubtedly too great to have been accidentally introduced.

Drugs and Pharmaceutical Preparations have been found to be eminently satisfactory, and to satisfy the standards laid down by the British Pharmacopœia.

All the remaining samples examined have been quite above reproach both as regards general quality and freedom from preservatives and contamination, and none of these samples calls for special comment.

Thus the number of samples against which certificates have been issued amounts to 31, comprising 3.30% of the total, and of these samples 28 consisted of milks which failed to conform to the standards laid down by the Sale of Milk Regulations, 1901 and 1912.

I feel it my duty to refer to the general position as it stands to-day in comparison with some earlier years in connection with the number of samples which are actually submitted for analysis, and whilst, as I have remarked earlier, we are fortunate in this County in showing a remarkably small percentage of adulteration upon the samples that are submitted, I feel it my duty to suggest for your consideration that we are not, perhaps, taking a sufficient number having regard to the probable increase in population year by year.

I would suggest for your consideration whether we are taking a sufficient number of samples in accordance with the general ideas of the Ministry of Health for the efficient working of the Act, and I add herewith a list showing the samples which have been taken over the years 1919 to 1928, when you will observe that we have latterly fallen somewhat below the average of these years, and certainly we are taking a smaller number of samples in 1927 and 1928 than we were, we will say, in the years 1919 to 1923.

I venture to suggest for your consideration as to whether a little additional attention should be given to this important point.

Total Samples		Total Samples	
Year.	Submitted.	Year.	Submitted.
1919	1052	1924	988
1920	1193	1925	1176
1921	1216	1926	1070
1922	1169	1927	986
1923	1159	1928	939

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912 AND 1917.

Report for the year ended 31st December, 1928.

(1) Milk and Cream not sold as Preserved Cream.

(a) Number of samples examined for the presence of a Preservative.					(b) Number in which a Preservative was reported to be present.
Milk	...	...	...	662	Nil
Separated Milk	...	...	...	3	Nil
Condensed Milk	...	...	...	2	Nil
Dried Milk	...	...	...	Nil	Nil
Cream	...	...	...	6	Nil

(2) Cream sold as preserved Cream.

Nil

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the labels as to preservatives were correct.

Nil

(i) Correct statements made	...	...	...	Nil
(ii) Statements incorrect	...	...	...	Nil
(iii) Percentage of Preservatives found in each sample.	Percentage stated on Statutory label.			
Nil.	Nil.			

(b) Determinations made of Milk Fat in Cream sold as Preserved Cream.

(i) Above 35 per cent.	...	...	...	Nil
(ii) Below 35 per cent.	...	...	...	Nil

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved Cream in Article V (1) and the proviso in Article V (2) of the Regulations have not been observed.

Nil

(d) Particulars of each case in which the Regulations have not been complied with, and action taken.

Nil

(3) Thickening substances.—Any evidence of their addition to cream or preserved cream:—

Nil

Action taken where found	Nil
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(4) Other observations, if any

...	Nil
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PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES.

The seven principal Zymotic Diseases are Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Fever (including Typhus, Enteric, and Continued Fevers), and Diarrhoea.

These diseases caused 163 deaths and gave a Zymotic death-rate of $\cdot 451$ for the County, as compared with a rate of $\cdot 377$ for the year 1927, $\cdot 30$ for 1926, $\cdot 73$ for 1925, $\cdot 38$ for 1924, $\cdot 85$ for 1923, $\cdot 46$ for 1922, $\cdot 94$ for 1921, $1\cdot 15$ for 1920, $\cdot 61$ for 1919, $1\cdot 26$ for 1918, $\cdot 96$ for 1917, $\cdot 72$ for 1916, $1\cdot 05$ for 1915, $1\cdot 73$ for 1914, $1\cdot 29$ for 1913, $1\cdot 86$ for 1912, $2\cdot 5$ for 1911, $1\cdot 22$ for 1910, $\cdot 87$ for 1909, $1\cdot 5$ for 1908 for the County.

Table showing death rate and attack (notification) rate of Zymotic Diseases in the County of Monmouth during the year 1928.

Population for death rate and attack (notification) rate, 361,300.

Disease.	No. of Deaths.	Death Rate per 1000 of population.	No. of notifications.	Attack Rate per 1000 of population.	England & Wales death rate per 1,000 of population.
Small Pox ... ..	...	...	1228	3.398	$\cdot 00$
Measles (including German Measles)	43	$\cdot 11$	Not notifiable	...	$\cdot 11$
Scarlet Fever	1	$\cdot 002$	368	1.018	$\cdot 01$
Diphtheria (including Membranous Croup)	20	$\cdot 055$	269	$\cdot 744$	$\cdot 06$
Whooping Cough	41	$\cdot 11$	Not notifiable	...	$\cdot 07$
Fever (including Typhus, Enteric and Continued Fevers)	5	$\cdot 013$	20	$\cdot 055$	$\cdot 01$
Diarrhoea	53	$\cdot 146$	Not notifiable	...	...
Totals	163	$\cdot 451$	*1885	5.217	...

* Notifiable Diseases only.

COMPARISON OF INFECTIOUS DISEASES DEATH RATES IN MONMOUTHSHIRE.

				Measles and German Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Typhoid	Small-pox
Average for years 1907- 1913 inclusive				·43	·07	·92	·13	·09	...
1914	...	...	...	·47	·13	·12	·17	·03	...
1915	...	...	...	·71	·09	·33	·19	·03	...
1916	...	...	...	·04	·06	·21	·12	·04	...
1917	...	...	...	·30	·02	·11	·06	·079	...
1918	...	...	...	·53	·03	·30	·08	·02	...
1919	...	...	...	·003	·06	·28	·07	·03	...
1920	...	...	...	·51	·06	·16	·18	·01	...
1921	...	...	...	·02	·03	·17	·12	·01	...
1922	...	...	...	·03	·02	·17	·11	·01	...
1923	...	...	...	·41	·01	·22	·09	01	...
1924	...	...	...	·03	·03	·07	·1	·02	...
1925	...	...	...	·20	·02	·21	·1	·02	...
1926	...	...	...	·02	·008	·07	·06	·01	...
1927	...	...	...	·097	·005	·09	·035	·008	·008
1928	...	...	...	·11	·002	·11	·055	·013	...

The following is a summary of the weekly notifications of infectious diseases received during the year from the local Medical Officers:—

DISTRICTS	Estimated Population, 1928 for estimating Notification rate	Small-pox Reg. General's Return	Scarlet Fever.	Diphtheria.	Enteric Fever.	Pneumonia.	Pulmonary Tuberculosis	Other Tubercular Diseases.	Erysipelas.	Puerperal Fever.	Encephalitis Lethargica.	Ophthalmia Neonatorum.	Chicken Pox	Acute Poliomylitis.	Dysentery	Puerperal Pyrexia	Acute Polio- Encephalitis
URBAN.																	
Abercarn	20,980	58	4	9	2	...	...	...	1	...	...	2	36	...	...	...	...
Abergavenny (Borough)	8,851	30	30	...	1	...	1	2	...	...	1	...	11	...	...	...	...
Abersychan	28,850	127	21	41	...	13	22	12	4	...	3	...	107	...	...	1	...
Abertillery	32,840	239	48	18	...	16	20	20	3	...	...	5	270	1	...	3	...
Bedwas and Machen	9,631	...	1	13	...	39	27	7	1	2	1	2	...	...	...	5	...
Bedwellty	32,080	188	42	21	...	11	71	22	14	3	1	6	312	...	...	1	...
Blaenavon	12,080	43	5	10	...	10	13	5	1	...	...	...	51	...	...	...	...
Caerleon	2,583	...	2	...	1	2	2	1	1	...	...	...	4	...	...	...	...
Chepstow	4,434	...	4	1	...	5	9	4	1	...	2	...	1	...	...	2	...
Ebbw Vale	33,650	114	31	51	3	135	72	23	19	2	1	3	280	1	...	3	...
Llanfrechfa Upper	4,691	...	3	1	...	10	11	2	2	...	...	1	26	...	...	2	...
Llantarnam	7,959	...	10	5	...	17	13	4	6	...	...	...	147	...	...	2	...
Monmouth (Borough)	5,034	...	...	7	...	1	5	...	...	...	...	...	19	...	...	...	...
Mynyddislwyn	16,560	35	15	7	1	5	29	12	2	1	...	3	82	...	...	3	...
Nantyglo and Blaina	15,200	179	19	5	1	56	14	6	2	...	...	3	22	...	...	1	...
Panteg	11,670	9	7	2	...	...	4	5	...	...	...	...	34	...	...	...	...
Pontypool	7,440	43	3	13	1	1	10	...	...	...	...	...	8	...	...	...	...
Rhymney	11,440	17	53	16	1	10	10	7	3	1	...	...	46	...	...	2	...
Risca	17,260	1	5	16	2	17	27	14	4	1	3	1	78	...	...	1	...
Tredegarr	24,440	167	24	6	2	24	65	23	7	1	...	3	94	1	...	4	...
Usk	1,407	...	1	...	...	2	...	...	...	...	...	...	9	1	...	...	...
Totals	309,080	1222	328	242	15	374	425	169	71	13	12	29	1637	4	...	30	...
RURAL.																	
Abergavenny	9,392	3	15	1	1	...	2	1	2	...	...	...	19	...	...	...	...
Chepstow	8,869	1	7	2	...	5	4	2	...	...	1	...	...	...	...	1	...
Magor	6,593	...	4	...	1	...	6	5	...	...	...	...	9	...	1	...	...
Monmouth	6,654	1	5	2	...	...	11	...	...	...	...	...	3	...	...	...	...
Pontypool	5,252	1	4	3	...	3	3	1	...	...	...	1	34	...	...	...	...
St. Mellons	15,460	...	5	19	3	1	11	2	...	1	...	...	25	...	...	...	...
Totals	52,220	6	40	27	5	9	37	11	2	1	1	1	90	...	1	1	1
Grand Totals	361,300	1228	368	269	20	383	462	180	73	14	13	30	1727	4	1	31	1

The number of cases of infectious diseases removed to Hospitals during the year, was as follows:—

CASES REMOVED TO HOSPITAL														
DISTRICT	Small pox	Diphtheria	Erysipelas	Scarlet Fever	Tuberculosis	Ophthalmia Neonatorum	Cerebro-Spinal Fever	Acute Poliomyelitis	Enteric Fever	Puerperal Fever	Chicken Pox	Pneumonia	Encephalitis Lethargica	Puerperal Pyrexia
Urban—														
Abercarn ... ..		...	...	...		...	...	...	...	...	...	...	...	...
Abergavenny ... ..		...	...	23		...	...	...	...	...	...	...	...	...
Abersychan ... ..		...	...	...		...	...	...	...	...	...	...	...	...
Abertillery ... ..		...	...	...		...	...	...	...	...	...	...	...	...
Bedwas and Machen		3	...	...		...	...	...	...	1	...	12	...	...
Bedwellty		10	...	29		...	...	...	...	...	...	...	...	...
Blaenavon ... ..		...	...	...		...	...	...	...	...	...	...	...	...
Caerleon ... ..		...	...	...		...	...	...	...	...	...	...	...	...
Chepstow		1	...	1		...	...	...	...	...	...	...	...	...
Ebbw Vale		47	...	...		...	...	...	2	...	...	...	...	...
Llanfrechfa Upper		...	...	...		...	...	...	...	...	...	...	...	...
Llantarnam		5	...	3		...	...	...	...	2	...	...	...	...
Monmouth		5	...	...		...	...	...	...	...	...	...	...	...
Mynyddislwyn ... ..		...	...	...		...	...	...	...	1	...	...	...	2
Nantyglo and Blaina		...	...	...		...	...	...	1	...	...	...	...	...
Panteg ... ..		...	...	2		...	...	...	...	...	...	...	...	...
Pontypool		1	...	...		...	...	...	...	...	...	...	...	...
Rhymney		1	...	...		...	...	...	...	1	...	...	...	1
Risca... ..		2	...	1		...	...	...	...	...	...	...	...	...
Tredegar ... ..		...	...	...		...	...	...	1	...	...	...	...	...
Usk ... ..		...	...	...		...	...	...	...	...	...	...	...	...
	<i>See Table later in this Report.</i>				<i>See Table later in this Report.</i>									
Rural—														
Abergavenny ... ..		...	...	5		...	...	...	...	...	...	...	...	...
Chepstow ... ..		...	...	3		...	...	...	...	...	...	...	...	...
Magor ... ..		...	...	1		...	...	...	...	1	...	...	...	...
Monmouth ... ..		...	...	...		...	...	...	...	...	...	...	...	...
Pontypool ... ..		...	...	1		...	...	...	...	...	...	...	...	...
St. Mellons		6	...	1		...	...	...	...	...	...	...	...	...
Totals		80	1	70		...	...	...	4	6	...	12	...	3

Analysis of the Cases Notified and Deaths from Infectious Diseases according to Age Groups.

CASES NOTIFIED.														DEATHS.													
Disease	AGE GROUPS.										AGE GROUPS.																
	Under 1 year	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	65 and over	Total all ages	Under 1 year	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	65 and over	Total all ages	
Diphtheria	1	7	14	19	22	108	44	20	20	7	7	..	269	..	3	3	3	7	16
Small Pox	25	23	12	24	25	241	190	183	200	109	182	14	1228
Erysipelas	1	1	..	..	..	3	..	3	8	12	35	10	73	..	..	..	..	..	..	1	..	..	..	..	..	..
Scarlet Fever	4	11	7	31	49	125	96	18	25	2	..	..	368	..	..	..	..	..	..	..	..	..	..	..	..	1
Tuberculosis	5	6	9	3	5	73	69	128	225	59	57	3	642	5	..	6	..	2	3	16	46	97	49	51	5	280	
Ophthalmia Neonatorum	30	..	..	..	..	..	..	..	..	..	..	..	30	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Pyrexia	..	..	..	..	..	..	..	..	20	11	..	..	31	..	..	..	..	..	..	..	..	..	..	..	..	..
Acute Poliomyelitis	1	1	..	..	..	1	..	1	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	..	..	..	..	..	..	5	2	10	2	1	..	20	..	..	..	..	..	..	1	..	1	..	..	..	3
Puerperal Fever	..	..	..	..	..	..	..	1	7	6	..	..	14	..	..	..	..	..	..	..	..	8	3	..	..	11
Dysentery	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Polioencephalitis	..	1	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1
Pneumonia	37	46	30	28	31	48	23	22	41	26	36	15	383	37	22	5	6	2	7	4	4	13	14	28	16	158	
Encephalitis Lethargica	..	..	..	1	..	7	..	2	3	..	..	..	13	..	..	..	..	1	2	5	3	..	..	..	..	11
Chicken Pox	107	146	166	153	261	786	62	24	5	10	2	..	1727	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	211	242	238	264	393	1392	489	404	564	245	320	42	4804	42	26	14	9	12	13	26	54	119	66	79	21	481	

With the exception of the Small Pox figures, the above table has been compiled from the returns submitted by the District Medical Officers of Health.

Measles.

During the year 1928 the deaths from this disease showed an increase over the figure for the previous year, being 43 as against 36 for 1927. The majority of the cases occurred in the late months of the year, but the disease did not at any time become epidemic generally. However, the Medical Officer of Health for the Pontypool area states that the disease became prevalent in his district during the winter months, but only two deaths were recorded. It is the practice in some of the districts to issue leaflets to the parents of children suffering from measles, with instructions as regards treatment.

Scarlet Fever.

There was a slight increase in the number of cases of Scarlet Fever notified during the year, the figures being 368 for 1928 and 353 for 1927, but although there is an increase in the number of notifications the number of deaths recorded was less, being only one in 1928 as compared with two in the previous year. It appears that the disease was generally of a mild form, but in some instances during the last four months of the year the disease appeared in a more virulent form. The Medical Officers in the Districts again point out the necessity for early notification so that the first cases can be efficiently isolated, and the spread of the disease prevented. As very few cases are removed to isolation hospitals for treatment the usual procedure adopted in the districts is for the Sanitary Inspector to visit each case and instruct the person in charge regarding isolation and treatment. Arrangements for the supply of disinfectants are also made. The " Dick " Test does not appear to have been carried out in any of the districts nor do the recent methods of immunisation seem to be practised.

Diphtheria.

The number of notifications of Diphtheria for 1928 was 269. This is a slight increase over the figure for the previous year, when the number was 254. The deaths recorded are also higher than those in the previous year, being 20 and 13 respectively. Very little comment is made by the District Medical Officers upon the disease, but from the reports received it appears that the disease was generally of a mild form. There was a small outbreak of Diphtheria in Pontypool, 13 cases were notified all of which recovered. The cases, with one exception, were isolated in their own homes. There was an epidemic of Diphtheria at Rogerstone during the year, chiefly prolonged by the presence of " carriers " amongst the school children. Examination of swabs taken from the throats of all children attending the school was conducted at the County Laboratory. All " carriers " were eventually found and excluded from school. The school was also closed for a period and all the departments were thoroughly disinfected. The " Schick " test has not been used in any of the districts. Diphtheria anti-toxin is always available and can be obtained either from the Local Medical Officer or the Sanitary Inspector.

Enteric Fever.

Twenty cases of Enteric Fever were notified in 1928, as compared with 16 in 1927. The number of deaths recorded was 5 as against 3 in the previous year. Of the 3 cases notified at Ebbw Vale, 2 proved fatal. The 3 patients were removed and treated at the Isolation Hospital. A case of Para Typhoid Fever in a school girl which proved fatal was notified from the Magor Rural Area. The source of infection was probably drinking from a wayside stream. In the Rhymney Urban District the case notified died during the third week. No apparent cause for the infection could be traced but it was found that this person was in the habit of drinking water from the roadside, and this can be considered a possible cause of the infection. With reference to the death from Enteric Fever recorded by the Registrar-General in the Llantarnam Urban District, no notification was made by the Local Medical Officer.

Diarrhoea and Enteritis

Thirty-five deaths were registered from this disease in children under two years of age, a decrease upon the number recorded in 1927, which was 48. The death-rate works out at 5.29 per 1,000 births as compared with 7.36 for 1927. All cases of which the Health Visitors for the County have knowledge are visited, but as the disease is not notifiable very few of the cases become known to them. During the years preceding the introduction of the County Maternity and Child Welfare Scheme the death-rate averaged 11 per 1,000 births. The average rate for the past 12 years, which includes one very hot summer, when the rate was 17.2, has been 7 per 1,000 births. It will be observed that the rate for 1928 is considerably below that average. Printed instructions to mothers in regard to these diseases are distributed by the Health Visitors when cases are found. It is also the practice in some districts to distribute instructional leaflets on this subject during the summer months.

Cerebro Spinal Fever and Acute Poliomyelitis.

No cases of Cerebro Spinal Fever were notified during the year, but during the year 1927 there were 2 cases. The number of cases of Acute Poliomyelitis showed an increase over the figure for the previous year, being 4, as compared with 2. There were, however, no deaths recorded. The four cases were notified from the following districts:—Abertillery, 1; Ebbw Vale, 1; Tredegar, 1; Usk, 1.

Small Pox

The epidemic of Small Pox in Monmouthshire continued during the year under review. The number of cases notified to the County Medical Officer from the various districts being 1,244. The number notified to the Registrar-General was 1,228, a difference of 16. The notification rate which has been based upon the figure supplied by the Registrar-General is 3.398. There were no deaths

recorded during the year. The number of cases removed to Hospital for isolation and treatment was 1,192, and they were accommodated at the several Hospitals as shown in the accompanying table. The table also shows the number of cases notified in the various districts of the County, and it will be noted that the disease has again been most prevalent in the thickly populated industrial areas.

Cases admitted to Hospitals and the number of cases notified to the Registrar-General and to the County Medical Officer during the year ended December 31st. 1928.

Isolation Hospitals.	Abercarn	Abergavenny	Abersychan	Abertillery	Bedwellty	Blaenavon	Ebbw Vale	Mynyddislwyn	Nantyglo and Blaina	Panteg	Pontypool	Rhymney	Risca	Tredegar	Abergavenny Rural	Chepstow Rural	Monmouth Rural	Pontypool Rural	TOTALS
Cefn ...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	5
Cardiff ...	...	...	4	...	...	...	...	...	46	...	...	...	...	...	...	...	...	...	50
Llanfoist ...	4	2	27	29	8	18	34	2	30	1	9	1	...	7	4	...	...	...	176
Bedwellty ...	19	...	6	13	132	6	23	24	13	2	6	6	...	16	...	...	...	1	267
Chepstow ...	10	...	14	14	14	9	12	...	16	2	6	...	...	12	...	1	...	...	110
Abertillery ...	7	...	1	121	7	...	7	2	8	...	3	...	...	...	...	...	...	...	156
Rhymney ...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	5
Beeches ...	20	1	61	49	25	13	38	4	48	4	18	3	1	137	...	...	1	...	423
TOTALS ...	60	3	113	226	186	46	114	32	166	9	42	15	1	172	4	1	1	1	1192
Cases notified to County Medical Officer	60	3	127	239	189	46	115	36	179	10	43	17	1	172	4	1	1	1	1244
Cases Notified to Registrar-General	58	2	127	239	188	43	114	35	179	9	43	17	1	167	3	1	1	1	1228

The Ambulance purchased by the County Council the previous year was fully occupied. The Ambulance of the Bedwellty Council was also in use during the time that the Bedwellty Isolation Hospital was under the control of the County Council.

Details in connection with the various Isolation Hospitals for the treatment of Small Pox cases will be found earlier in this report under the heading "Hospital Accommodation."

As recorded last year, so it may be recorded this year, that the activities of the Department have been rendered more difficult and hampered by the campaign of the so-called anti-vaccinists, and quite recently a pamphlet has been issued by some of these peculiar people and headed "The Ministry of Health," a superscription which they know to be a falsehood and for which they had no authority.

During the year a report of the Committee appointed by the Minister of Health has been published. The Committee was to inquire and report from time to time:—

(i) On matters relating to the preparation, testing and standardization of vaccine lymph;

(ii) on the practical methods which are available in the light of modern knowledge to diminish or remove any risks which may result from vaccination;

(iii) on the methods of vaccination which are most appropriate to give protection against risk of small pox infection in epidemic and non-epidemic periods;

and to co-ordinate the work of investigation on these questions in this country and abroad, having regard to corresponding work undertaken by international health organizations.

The Committee consisted of eminent doctors and surgeons, with Sir Humphrey Rolleston, Regius Professor of Medicine at the University of Cambridge, and a former President of the Royal College of Physicians, as Chairman.

Experience has shown, according to the report, that there is a readier acceptance of vaccination and re-vaccination during the time of small pox outbreaks, and that this acceptance, coupled with the vigilance of the sanitary authorities, has repeatedly succeeded in controlling the outbreaks.

Unfortunately, however, there is an increasing tendency by parents to claim exemption for their children and a growing belief that re-vaccination is ordinarily unnecessary.

THE OBJECTORS.

So far as the Committee has been able to ascertain, says the report, the objectors to vaccination can be divided into three classes, namely:—

(1) Convinced anti-vaccinators, who systematically claim exemption for their children;

(2) Persons who habitually claim exemption, largely from indifference or in order to avoid possible trouble with a fretsome child; and

(3) A class which has appeared spontaneously during the prevalence of mild small pox and alleges that small pox to-day is accompanied by less discomfort than vaccination.

In the last class, the report adds, there are many who maintain that it is possible to continue at work with little or no discomfort during an attack of mild small pox, whereas abstention from work is commonly necessary after vaccination.

CONCLUSIONS.

“ We are confident,” continues the report, “ that vaccination and re-vaccination systematically and efficiently carried out would eradicate small pox and would render negligible the risk of the disease gaining any footing in the future. We know of no action other than this which would secure for the individual and for society effective protection against small pox.”

“ If an alteration of the Vaccination Acts is decided upon the committee would view with some trepidation any alteration which did not give power to the Minister of Health, or to local sanitary authorities with the Minister’s consent, to require vaccination, generally or locally, from time to time should circumstances demand such action.”

TEN RECOMMENDATIONS.

The following recommendations are made:—

(1) In place of the officially advocated four insertions, trial be made of vaccination and re-vaccination in one insertion, with a minimum of trauma, and that multiple scarification and/or cross-hatching be deprecated.

(2) Primary vaccination be performed in infancy, between the ages of two and six months, as at present, and that re-vaccination be offered at the time when a child enters school (5 to 7 years) and again on leaving (14 to 16 years).

(3) Vaccination in multiple insertions be available for such persons as desire to obtain the maximum protection against small pox obtainable at one operation.

(4) In public vaccination parents be informed that if, in consequence of vaccination, a child required medical attention, it is the duty of the public vaccinator concerned to provide such attention without cost to the parents.

(5) Instead of the one inspection now required in the case of public vaccination there be two, the first not earlier than the seventh or later than the tenth day, and the second not earlier than the fourteenth or later than the seventeenth day.

(6) A partial reversion to the principle of stational vaccination be considered.

(7) The syllabus of instruction in vaccination of medical students be revised in the light of present-day knowledge and of these recommendations.

(8) Experimental observations be made to ascertain if it is feasible to increase the dilution of vaccine lymph beyond the present degree without impairing its efficacy.

(9) Provision be made for the continuance of experimental investigation with a view to the furtherance of knowledge of vaccinia and the virus diseases in general, with a special reference to the pathogenises of the nervous complications which occasionally follow these diseases.

(10) Steps be taken to impress upon the public mind the nature and purpose of vaccination.

Having regard to the continued incidence of Small Pox in the County, we are again citing in this report the following reports relating to Small Pox in Monmouthshire:—

(1) The Interim Report upon the incidence of Small Pox, February to July, 1927, being the vaccinal condition of the first 1,230 cases with related data and activity, by Dr. H. M. Ayres, one of the Assistant Medical Officers.

(2) The vaccinal condition of the School Children of Monmouthshire, by Dr. Nathan Rocyn Jones, Assistant Medical Officer, September, 1927.

(3) The Minutes of proceedings of the Panel Committee of the Medical Practitioners in Monmouthshire, dated 22nd April, 1927.

REPORT No. 1

The following report, submitted by Dr. H. M. Ayres, one of the Assistant Medical Officers of the Monmouthshire County Council, is the result of a careful analysis and investigation into the first 1,230 cases of small pox which occurred during the prevailing epidemic in Monmouthshire.

It was thought prudent to have this investigation in view of the bitter campaign of falsehood and deception conducted by the anti-vaccinists in Monmouthshire respecting the policy of the County Medical Department.

A careful perusal of the report will convince any man or woman of average intelligence that the policy of the department has been a reasonable and a proper one.

In no instance have we found the campaign or the policy of the anti-vaccinists to be marked by one grain of constructive ability for the ultimate relief of human pain and suffering.

We do not hesitate to declare that the anti-vaccination campaign in Monmouthshire has materially aided the spread of the scourge of small pox with its suffering and disfigurement and its aftermath of unnecessary financial loss, individually, commercially, and publicly.

Recently we have had the benefit of the advice and opinion of some of the most experienced medical practitioners in the land, and our deliberations have led us to the conclusion that we cannot hope under present conditions to rid Monmouthshire of this scourge for at least another twelve months, unless we are assured of the full co-operation of all the parties affected and concerned for the individual and communal health.

Preliminary Report upon the Incidence and Vaccinal Condition of the first 1,230 cases investigated.

Authoritative information with regard to the position of the small pox epidemic raging at present in Monmouthshire is now available, and it is thought well to enlighten the public with regard to the vaccinal condition of the first 1,230 cases fully investigated to date, and at the same time impress upon everybody that certain anti-vaccination propagandists are still attempting to mislead the public by misquoting letters which have appeared in the medical press.

Firstly, let us review the situation in England and Wales during 1925 with regard to the vaccinal condition of the notified cases of small pox, and later compare the position in Monmouthshire. (The official statistics for 1926 are not yet available).

England and Wales.

Vaccinal Conditions, 1925.

Age period.	A. Vaccinated, as evidenced by the presence of one or more vaccination scars.	B. Stated to have been successfully vaccinated, but no vaccination scar present.	C. Stated to be unvaccinated or vaccinated unsuccessfully and no vaccination scar present.	D. Previously unvaccinated, but vaccinated during the incubation period.	E Stated to have been successfully re-vaccinated.
Under one year ...	...	...	67	10	...
1 year ...	...	...	47	7	...
2 years ...	...	...	69	10	...
3 „ ...	...	...	89	8	...
4 „ ...	...	...	130	15	...
5 „ ...	...	...	156	14	...
6 „ ...	...	...	195	6	...
7 „ ...	...	1	162	6	...
8 „ ...	...	...	187	6	...
9 „ ...	...	...	181	12	...
10 „ ...	...	2	234	5	...
11 „ ...	...	1	246	15	...
12 „ ...	4	...	244	10	...
13 „ ...	...	1	223	10	...
14 „ ...	1	4	204	9	...
15 „ ...	29	6	695	38	...
20 „ ...	37	2	360	19	...
25 „ ...	27	1	229	8	...
30 „ ...	46	4	136	5	1
35 „ ...	85	5	73	5	2
40 „ ...	291	9	104	2	4
50 „ ...	268	10	77	2	3
60 „ ...	108	4	21	3	2
70 „ ...	27	...	3	1	1
80 „ and upwards...	2	...	...	2	...
TOTALS ...	925	50	4132	228	13
Percentage ...	17.3	0.9	77.3	4.3	0.2

This table is full of instruction. The first column shows clearly that no infants, nor young children, who had been successfully vaccinated were attacked by small pox. Indeed, only five of these patients were under 15 years of age, which allows of a lapse of not less than 14 years since infantile vaccination. In the old days, however, before infantile vaccination was introduced, small pox was, in the main, a disease of childhood. A scrutiny of the individual vaccinal condition of these cases of small pox in England and Wales in 1925 reveals the fact that only 9 of them were vaccinated at an age period beyond infancy, but the

intervals elapsing between vaccination and attack, even in the 9 cases, were 10, 10, 12, 14, 15, 17, 31, 49 and 60 years respectively. **It will be remembered that the Royal Commission on Vaccination in their Final Report declared that immunity arising from vaccination could not be assured beyond nine or ten years.**

The figures in column " C " show a very different state of affairs from that in column " A " and reveal that a large number of the unvaccinated were attacked in childhood.

An argument frequently advanced by those opposed to vaccination is that in recent years the fatality rate among vaccinated cases of small pox has been greater than that among unvaccinated cases of the disease. Statistics relating to the vaccinal condition of small pox cases in the country as a whole are not available prior to 1912. The fatality rates of cases vaccinated successfully during infancy and unvaccinated before the epidemic during the 14 years, 1912 to 1925 may, therefore, be considered.

During the first period of seven years, namely, 1912 to 1918 inclusive, the fatality rate among the vaccinated was 5·6, as compared with 17·8 among the unvaccinated. In 1919 the present milder type of small pox made its appearance in this country, and has continued ever since, but, in addition to the mild type of disease, there have been from time to time, importations of a more severe form of the malady which have given rise to localised outbreaks with a high mortality rate. For instance, in 1922 there was a sharp outbreak in London and neighbourhood, comprising 78 cases, with 24 deaths.

The recent occurrence of nine cases of small pox at Hendon, Middlesex, of which five were fatal, is noteworthy, in view of the severity of the infection and the vaccinal condition of the patients.

It would appear that the first patient was a man aged 47, who had been vaccinated only in infancy. Although his illness did not take a grave form, it was not of the mild type prevailing elsewhere in England, and the source of the infection has not been traced. His wife, aged 42 years, who had not been vaccinated since infancy, contracted the disease severely, but is believed to be convalescent. The two daughters, aged respectively 16 and 8 years became infected; both were unvaccinated and the infection ran a severe course. The elder died, the disease being of the confluent fatal type, but it is hoped the younger may recover.

Four workers in the laundry to which the linen from this family had been sent developed small pox, and three died. Two of these, aged 38 and 15 years, were unvaccinated, and the disease was of confluent fatal type. The third was a rapidly fatal case of hæmorrhagic small pox in a woman, aged 23 years, who had only been vaccinated in infancy. Her baby, which developed small pox a week after birth, died five days later. The fourth worker in the laundry was an unvaccinated woman aged 21 years. She was vaccinated after the onset of the symptoms,

and, although a rash developed later it was of moderate severity, and the patient is expected to recover.

Such an outbreak of a virulent type could occur in Monmouthshire, and only vaccination and re-vaccination would protect the population. There is not the slightest doubt that **successful vaccination, if of sufficiently recent date**, confers immunity from attack by the disease, and there is nothing in recent facts to disturb the evidence of a century, that Small-pox in all forms can be avoided by vaccination and re-vaccination at appropriate intervals.

In this connection it will be of interest to note the information given by the Minister of Health in Parliament recently:—

Deaths from Small-pox.

Lieut-Colonel Howard-Bury asked the Minister of Health on 9th May how many deaths had been due to smallpox during the present year in this country. Sir Kingsley Wood (Parliamentary Secretary to the Ministry of Health) replied: Twenty-seven deaths among persons suffering from smallpox have so far been reported in England and Wales during the present year, but in some cases the death certificates have not yet been received.

Colonel Howard-Bury asked if the Ministry of Health were taking any steps, in view of the danger of an epidemic, to recommend vaccination.

Sir K. Wood replied that they were doing all they could in that direction.

Commander Williams asked if the department were drawing the attention of the school authorities to the very great need of encouraging vaccination.

Sir K. Wood said that the department were doing all they could in that direction.

Small-pox and Vaccination.

Mr. THURTLÉ asked the Minister of Health in how many of the cases of smallpox which have ended fatally this year vaccination had taken place. Sir Kingsley Wood replied: Since the reply given on this subject to the hon. and gallant Member for Chelmsford (Lieut.-Colonel Howard-Bury) on the 9th inst., a further death has occurred among patients suffering from smallpox. Of the 28 cases which have ended fatally this year, 21 were unvaccinated at the time when they acquired infection, while seven had been vaccinated in infancy. The ages of the latter at the time when they were attacked by Small-pox were 22, 23, 44, 50, 54, 58, and 62 respectively.

Dr. Watts: Is the hon. gentleman aware that the types of cases in the last few months have been more virulent than any we have had for some time?

Sir Kingsley Wood: Yes, I have seen a statement to that effect.

Now let us turn to the statistics for the vaccinal condition of the cases in the present Monmouthshire epidemic. In recent letters in the Press, it was quite evident that, although the writers may be sound in their mind and body, they were certainly statistically most unsound, only their own side of the argument being exploited by figures, while the other side was left severely alone. Leaving aside all arguments for or against vaccination, the following table reveals information which is most convincing and interesting.

MONMOUTHSHIRE. Vaccinal Condition—First 1,230 Cases.

Age Period.	A.			B.			C.			D.			E.		
	Vaccinated, as evidenced by presence of one or more vaccination scars.			Stated to have been successfully vaccinated, but no vaccination scar present.			Stated to be unvaccinated, or vaccinated unsuccessfully and no vaccination scar present.			Previously unvaccinated, but vaccinated during the incubation period.			Stated to have been successfully re-vaccinated.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Under one year	...	...	...	...	...	...	12	13	25	...	...	...	...	...	...
1 year	...	...	...	...	...	...	7	10	17	...	...	...	...	...	...
2 years	...	...	...	...	...	...	9	13	22	...	...	1	...	...	...
3 "	...	...	...	...	...	...	14	13	27	...	...	1	...	...	...
4 "	...	...	...	...	...	...	10	11	21	...	...	1	...	...	...
5 "	...	...	...	...	...	...	18	20	38	...	...	1	...	...	...
6 "	...	...	...	...	...	...	23	15	38	1	1	2	...	...	...
7 "	...	...	...	...	...	...	19	14	33	1	2	3	...	...	...
8 "	...	...	...	1	...	1	9	9	18	1	...	1	...	...	...
9 "	...	...	...	...	...	...	13	14	27	...	3	3	...	...	...
10 "	...	...	...	...	...	...	14	12	26	1	...	1	...	...	...
11 "	...	...	...	...	...	...	6	14	20	...	...	...	...	...	...
12 "	...	...	...	...	...	...	9	8	17	1	2	3	...	...	...
13 "	...	...	...	...	...	...	8	18	26	2	1	3	...	...	...
14 "	...	...	...	...	...	...	21	22	43	2	3	5	...	...	...
15 "	6	...	6	...	...	...	159	70	229	8	5	13	...	...	...
20 "	5	5	10	...	1	1	72	22	94	5	2	7	...	...	...
25 "	8	4	12	2	...	2	27	25	52	1	1	2	...	...	...
30 "	15	6	21	...	...	...	16	8	24	...	...	...	...	...	...
35 "	24	13	37	...	1	1	12	1	13	...	...	...	...	...	...
40 "	61	27	88	...	1	1	17	10	27	2	...	2	1	...	...
50 "	73	27	100	...	1	1	14	7	21	1	...	1	3	...	...
60 "	14	6	20	...	...	...	5	1	6	...	...	...	4	...	4
70 "	3	3	6	...	...	...	...	...	...	...	...	...	...	1	1
80 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
upwards	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	209	91	300	3	4	7	514	350	864	26	24	50	8	1	9
Percentages	27.50	19.36	24.39	0.39	0.85	0.57	67.63	74.47	70.24	3.42	5.11	4.06	1.05	0.21	0.73

1 20 yrs. ago
 1 18 "
 1 27 "
 1 36 "
 1 48 "
 1 18 "
 1 30 "
 1 53 "
 1 65 "

The foregoing are the statistics for the first 1,230 cases of small pox investigated in the Monmouthshire epidemic.

Column A shows **that no infants, nor young children, who had been successfully vaccinated, have been attacked, and only 6 cases are under 20 years of age.** Of the 300 cases successfully vaccinated in Column A only two were vaccinated at an age period beyond infancy, and the period between vaccination and the attack was in one case 24 years, and in the other 20 years. Young adults of working age, between 15 and 25 years of age, have suffered most.

All the cases in Columns A, B and E were declared vaccinated before the epidemic, giving a total of 316, or 25·69 per cent.

All the cases in columns C and D were declared unvaccinated before the epidemic, giving a total of 914, or 74·31 per cent.

The vaccinal condition of nearly 60,000 Monmouthshire school children has been investigated and reveals the important fact that 61 per cent. are vaccinated and 39 per cent. are unvaccinated.

The antivaccinist may call this disease any name he chooses for propaganda purposes, but will he explain the significant fact why, among this huge number of vaccinated school children, there is not a single case of the disease in a child who was successfully vaccinated before the epidemic, while among the unvaccinated school children under 15 years there are not less than 355 cases.

Surely, to every intelligent and reasonable person, these facts are sufficient evidence that vaccination is playing an important part in the protection of the children of Monmouthshire from this scourge.

The 1,324 cases which have occurred up to the 23rd July, throughout the County, are sub-divided in the above table into the different areas concerned, the details of which are as follows:—

Abercarn	...	...	...	66	Pontypool	...	...	...	70
Abersychan	...	...	...	818	Risca	...	...	...	6
Abertillery	...	...	...	52	Tredegarr	...	...	...	1
Bedwellty	...	...	...	17	Abergavenny	...	...	...	3
Blaenavon	...	...	...	242	Idantarnam	...	...	...	2
Caerleon	...	...	...	1	Idanfrechfa	...	...	...	1
Mynyddislwyn	...	...	...	24	Magor	...	...	...	2
Panteg	...	...	...	19					

There has been no juggling of figures, nor mis-statement, to mis-lead the public, practices so prevalent amongst the anti-vaccinists, for the figures on both sides of the argument have been given. It will be seen from even a general survey of the epidemic, and the statistics of the vaccinal condition of the patients, that,

however elastic an imagination the anti-vaccinists have, they cannot mis-interpret the significance of the above figures.

It was impossible in the early days of the epidemic to carry out a drastic policy of isolation and vaccination of contacts, in spite of the fact that invaluable assistance was rendered by the Cardiff and Newport Authorities, as the hospital accommodation which had been sought for many years was not available, and the contacts were too numerous to be successfully coped with. The resources of the County are now being strained. It was not possible to remove all cases on the day of notification, consequently a large number of direct contacts were isolated in their own homes, and naturally suffered inconvenience, especially the children of school age. Cases of concealment are prevalent, and misdemeanours of this sort are occurring which cannot always be detected.

From the medical point of view, the most important fact is that the majority of the cases continue to be of the non-virulent type, but in all of these there is a history of most severe symptoms, especially among the men of middle age. It is an insult to the feelings of the unfortunate sufferers to attempt to persuade them by incorrect figures and scurrilous literature that they merely have a simple skin eruption.

The situation is still causing grave concern to the County Authorities, as it affects not only the health, but the commercial prospects of the County.

Undoubtedly, the main cause of the spread of the disease has been the unvaccinated state of a large number of people in the affected districts, and the majority of those who have contracted small pox have been either unvaccinated, or else adults who had only been vaccinated in infancy.

The non-virulence of the disease has led to its spread in two ways.

Firstly, it has been extremely difficult to persuade the unaffected section of the community of its seriousness, for it is not uncommon for families to continue visiting homes where small pox has recently occurred. It is this absolute neglect of precautionary measures on the part of families and individuals that is spreading the disease.

Secondly, the disease has been spread in a number of districts owing to the illness, in the first place, being concealed and treated by the parents as influenza or chicken pox.

If the public could be brought to realize the protection afforded by efficient vaccination, the epidemic might be stamped out in a very short time, and further financial loss, not to mention the suffering involved, brought to an end.

Conferences of medical officers of health and medical officers of hospital authorities in the County of Durham were held in May, 1925, and again in December, 1926, and the following resolution was passed:—

“ That in the opinion of the Conference, the present epidemic of Small-pox (County of Durham) would not have occurred if the stringency of the Vaccination Acts had not been weakened; and that prompt vaccination or re-vaccination of susceptible persons is of the utmost importance if the present epidemic of Small-pox is to be brought under early control; and that if such vaccination or re-vaccination was secured, Small-pox in the County would be stamped out within three months.”

Let the public be well advised, and take warning from the experience of the people of Durham.

Now let us turn to certain pamphlets which have been recently distributed in Monmouthshire by the anti-vaccinists. One would be tolerant if the information contained was correct, but the writer has been impertinent enough to actually guillotine certain letters contained in the *British Medical Journal*, a weekly of world-wide reputation. The writer has not quoted nor misquoted from **articles in this journal, but from a series of letters between two doctors.**

Whatever view may be held by the anti-vaccinists, surely, the public must be guided by a majority opinion, and **the fact that an overwhelming majority of medical men of all nations, who are best able to judge, are in favour of vaccination.**

The following is taken from an anti-vaccination pamphlet being distributed:—

“ The British Medical Journal.”

“ The pages of this Journal contain strong evidence against compulsory vaccination, as shown by the following extracts:—

22nd January, 1927. Dr. C. Killick Millard, Medical Officer of Health for Leicester (pages 163 and 164) objects to enforcement of infant vaccination. Referring to the period 1873-92, when infant vaccination was as complete as possible, he says:—

‘ Vaccination proved quite incapable of preventing wide-spread and fatal epidemics.’ ”

The actual paragraph of the letter which appeared in the “ *British Medical Journal* ” (page 163), dated 22nd January, 1927, was as follows:—

“ During this period, be it observed, vaccination alone was trusted to and was regarded as our chief line of defence, and those **modern methods of controlling Small-pox, notification, isolation, surveillance, and vaccination of contacts, which have since proved so effective,** were still in their infancy. The Infectious Diseases (Notification) Act, for example, was not passed until 1889, though it is true that many towns had local Acts earlier than this year.

Under these circumstances, vaccination proved quite incapable of preventing wide-spread and fatal epidemics.”

Dr. Millard does not infer that he does not uphold vaccination, as will be shown again later, but that **under the circumstances mentioned**, namely, the trusting of vaccination, only, without the modern methods of defence, the disease will not be prevented from **spreading**.

Again, the pamphlet takes a few words from the reply of Professor Wynne, which are deliberately mis-interpreted and mis-used.

The pamphlet reads as follows:—

“ 5th February, 1927, pages 261 and 262. Dr. Fred E. Wynne, Medical Officer of Health, Sheffield, and Professor of Public Health, Sheffield University, expresses himself strongly in favour of vaccination, but says, ‘ Our present system of nominal compulsion with unlimited exemption is chaotic and idiotic. I should like to see it abandoned and special treatment of infected areas.’ ”

The actual wording in the British Medical Journal is as follows:—

“ I agree that our present system of nominal compulsion with unlimited ‘ exemption ’ is chaotic and idiotic. I should like to see it **abandoned, and power given by Parliament to the Minister of Health to declare any area** in which Small-pox exists to be ‘ an infected area,’ and to make regulations dealing with such areas which **should include compulsory vaccination and re-vaccination of the whole population in such specified areas.**”

The complete letter of Dr. Wynne is given below, and it is unfortunate that it should have been misused for anti-vaccination propaganda.

SMALL-POX AND VACCINATION.

Sir,—Dr. Killick Millard’s letter in your issue of January 22nd (p. 163) contains a brief quotation from Dr. Barry’s report on the Sheffield outbreak of Small-pox in 1887-88 which, I think, would lead any reader not familiar with the whole of that document to infer that Dr. Barry had considered that vaccination as a measure of prevention against Small-pox had been a failure. Dr. Millard is a personal friend of mine, and will, I am sure, acquit me of any intention to impute to him any deliberate misrepresentation or attempt to mislead his readers; but I feel it my duty to point out that Dr. Barry’s report is one of the strongest arguments in favour of vaccination which has ever been published.

The actual figures quoted by Dr. Millard are substantially correct. At that date the population of Sheffield was estimated to be 316,288. The number of vaccinated persons was 270,055, or 97·9 per cent. of the whole; the number unvaccinated was 5,823, or 2·1 per cent.

This figure for “ vaccinated persons ” includes people at all ages who had been vaccinated in infancy. It follows, of course, that the great majority of these, although officially “ vaccinated,” were actually unprotected by vaccination. Even so, the actual figures for incidence and mortality in vaccinated and unvaccinated persons are as follows:

Vaccinated persons attacked, 4,191, or 1·5 per cent.

Unvaccinated persons attacked, 553, or 9·5 per cent.

Deaths in vaccinated persons, 203, or 0·07 per cent.

Deaths in unvaccinated persons, 275, or 4·73 per cent.

The case mortality in vaccinated persons was 4·8 per cent., and in unvaccinated persons, 49·7 per cent.

The last two figures do not appear in Dr. Barry's report, but have been extracted from his figures in this office.

Dr. Barry, however, gives the following figures (p. xvi) :—

“ Of children under 10 years of age, the attack rate was—
 of the vaccinated 5,
 of the unvaccinated 101.

The death rate of the vaccinated was 0·09.

The death rate of the unvaccinated was 44·00.”

Dr. Barry adds:

“ Let me state this difference in other terms: for 100,000 vaccinated children the rate of Small-pox mortality actually observed in Sheffield gives 9 deaths. For 100,000 unvaccinated children the rate of Small-pox mortality actually observed gives 4,400 deaths.”

The following figures may also be quoted from p. xvii:

“ Per thousand of the number of persons over 10 in each class—			
The attack rate in persons twice vaccinated was	...	...	3
The attack rate in persons once vaccinated was	...	...	19
The attack rate in persons not vaccinated was	...	...	94
The death rate among persons twice vaccinated was	...	...	0·08
The death rate among persons once vaccinated was	...	...	1·00
The death rate among persons not vaccinated was	...	...	51·00 ”

Dr. Barry also says:

“ The twice vaccinated persons over 10 years of age as compared with the unvaccinated persons of the same age living in the town, had a 31-fold immunity against attack by Small-pox and had a 640-fold security against death by Small-pox.”

If space permitted, such quotations could be multiplied *ad libitum*; but these are, I think, sufficient to prove what were the actual facts of the outbreak in Sheffield, and what were the views of Dr. Barry, who studied the epidemic, endorsed by Dr. Buchanan, who drafted and signed the introduction to the report from which the above quotations have been excerpted.

Sheffield is again in the throes of an epidemic of Small-pox, in a form which is certainly reverting from the very mild type with which we have recently been familiar to a form quite indistinguishable from “ old-fashioned Small-pox,” with a grave and, I fear, disfiguring eruption, and in many cases with severe constitutional disturbance. The city has for many years maintained special houses for the isolation of contacts, and, of course, adequate provision has been made for the isolation and treatment of cases. I think I may claim that Sheffield has fully carried out those “ modern methods of fighting the disease ” which Dr. Millard states have taken the place of infant vaccination and have proved so successful. In Sheffield these measures have now failed, and we are faced with an outbreak of which no one can predict the limits.

Visiting these cases daily for purposes of diagnosis, and noting the absolute precision with which the disease singles out the unvaccinated members of the community, it is, to me, disheartening to find so eminent and so highly esteemed a colleague as Dr. Killick Millard publishing statements which will certainly be mis-

interpreted and misused by persons who **are imbued with that curious passion called "antivaccination,"** a passion which I know is not shared by Dr. Millard. I use the word "passion" deliberately, with a perfectly clear recollection of Dugald Stuart's definition of "appetites, passions and desires" in his wise but now out-of-date book on Moral Philosophy.

The psychology of the anti-vaccinist has not been sufficiently studied. His attitude is not based on reasoning, and he, or she, cannot be convinced or converted by reason or by any amount of facts or statistics. The attitude of the anti-vaccinist is definitely a "passion." It is a revolt against what appears to him to be an imposition of authority, and the medical profession has failed, wherein past days the Church has succeeded, in imposing a faith that it believes to be for the good of the community, largely because it has attempted to appeal to reason and not to superstition, an older and more powerful element in the mental equipment of the average man.

I have only to add that, as regards policy, Dr. Millard and I are quite in accord. He agrees that in emergencies such as that with which I am at present faced, vaccination and re-vaccination are essential weapons against the disease. **I agree that our present system of nominal compulsion with unlimited "exemption" is chaotic and idiotic. I should like to see it abandoned, and power given by Parliament to the Minister of Health to declare any area in which Small-pox exists to be "an infected area," and to make regulations dealing with such areas which should include compulsory vaccination and re-vaccination of the whole population in such specified areas.—I am, etc.,**

FRED E. WYNNE,

*Medical Officer of Health, Sheffield, and Professor
of Public Health, Sheffield University.*

January 25th.

Dr. Millard's correspondence was criticised by Dr. Cameron, and the letter and answer which appeared in the "British Medical Journal" are given below where Dr. Millard states **that his faith in vaccination remains as strong as ever.**

SMALL-POX AND VACCINATION.

Sir,—If Dr. Killick Millard's letter in your issue of January 22nd (p. 163) is to be understood as it is written, his opinion has apparently undergone considerable change since we last heard from him on this subject. As far as I could understand from his former contribution, Dr. Millard's *bête noire* was not "vaccination." He believed that recent and efficient vaccination protects against Small-pox, and he showed by his practice, as well as by a particular experiment which he quoted, that the individual infant is certainly protected by vaccination. He appeared to be doubtful whether the vaccinated infantile community was or was not protected, but he was quite clear in stating that it was "compulsory infantile vaccination" to which he was opposed.

Now Dr. Millard says: "Under these circumstances vaccination proved quite incapable of preventing widespread and fatal epidemics," and in illustration of this extraordinary statement he refers to the Sheffield, Warrington, and Middlesborough classics. Is this really Dr. Millard's opinion? Is his omission of the qualifying words "compulsory infantile" intentional or unintentional?

Under present conditions in this country in regard to Small-pox and its prevention, any medical statement or opinion should admit of no misunderstanding, and should be made only under the clearest sense of responsibility. It is very essential also in

dealing with this subject to bear in mind that there are others who quote extracts from medical writings on vaccination, and do so for a reason very different from the reason which has induced me to criticize Dr. Killick Millard's letter.—I am, etc.,
Dartford, January 2nd, 1927.

A. F. CAMERON.

Sir,—Dr. A. F. Cameron suggests that my opinions about vaccination have apparently undergone considerable change. I can assure him that there has been no change. **My faith in vaccination remains just as strong as ever**—my faith in much of the current teaching about vaccination remains still rather weak.

Dr. Cameron inquires (though I rather doubt if he is really seeking enlightenment) as to my exact meaning when I say: "Under these circumstances vaccination proved quite incapable of preventing widespread and fatal epidemics." Do I mean by "vaccination," he asks, "compulsory infant vaccination"? Certainly I do. My whole letter was dealing expressly with the question of compulsory vaccination, and infant vaccination is the only form that has ever been compulsory in this country. I had hoped that the context made my meaning quite clear.

There is, however, one small correction in my letter which I should like to make. I said that in Leicester there had been no death from Small-pox for twenty-one years. Actually the last death occurred in 1904, so that it should have been twenty-two years. I had forgotten that we had entered upon another year.—I am, etc.,

C. KILLICK MILLARD.

Health Offices, Leicester, Jan. 29th, 1927.

Lastly, with reference to certain recent correspondence in the Press, incomplete and misleading statements were made with regard to vaccination statistics.

The correspondent stated that in the 1901-2 London epidemic there were 6.945 vaccinated victims, but true to his policy of suppressing or ignoring vital facts, he makes no mention of the number of unvaccinated victims. In this very epidemic the **outstanding fact emerges that the case mortality among the vaccinated was 10.3 per cent., whereas in the unvaccinated it was as high as 34.6 per cent.**

Furthermore, the ages of the vaccinated cases should have been stated as in the foregoing tables, **for immunity cannot be assured beyond 9 or 10 years after vaccination or revaccination.**

Fortunately, the public refuse to be hoodwinked by such literature, but prefer to be guided by the opinion of such men as Sir George Newman, M.D., F.R.C.P., the Chief Medical Officer of the Ministry of Health, who says, "It cannot be too emphatically asserted that, in the opinion of those **best qualified to judge**, vaccination remains our one and only sure bulwark against the spread of Small-pox."

H. M. AYRES,

Assistant Medical Officer.

REPORT No. 2**THE VACCINAL CONDITION OF SCHOOL CHILDREN
OF MONMOUTHSHIRE.**

1. The object of this investigation was to obtain statistics with regard to the vaccinal condition of the school children of the County, and with these, a comparative estimate was established in two instances of the number of cases of Small Pox among children of approximately the same age.

2. The scope of the investigation is as follows:—

Data have been obtained from all the schools, excepting those of the Abertillery and Ebbw Vale Districts, and the Secondary schools; the former two are autonomous areas and do not fall under the administration of the County Authorities. Information was obtained on the following points from each school:—

- (a) The number of children on the school register.
- (b) „ „ „ „ vaccinated in infancy.
- (c) „ „ „ „ vaccinated during the epidemic for the first time.
- (d) The total number of vaccinated children.
- (e) „ „ „ „ unvaccinated children.
- (f) The number of children vaccinated in infancy and subsequently re-vaccinated.

The cases of Small Pox used for comparison with the vaccinal statistics are those occurring in children from the age of five years up to, but not including, 14 years of age. The vaccination returns include a number of children under 5 years of age and over 14. This is unavoidable. It precludes an absolutely accurate comparison of the Small Pox and vaccination statistics, but does not invalidate any conclusions which have been drawn.

3. The figures obtained have been arranged in several ways so as to bring out different aspects of the problem. For instance:—

“ A ” This table gives the gross figures and percentages in each of the sections enumerated above, i.e., No. of children vaccinated in infancy, etc.

“ B ” This is a summary of the return from which “ A ” has been obtained. It compares the figures of the different groups of schools into which the County is divided for administrative purposes.

“ C ” 1 & “ C ” 2. These are simplified forms of the report “ B ” together with the number of cases of Small Pox amongst school children.

“ D ” This is a comparison of the vaccinal conditions in the Rural and agricultural areas.

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TABLE "C" I.

GROUP.	Number of children on Register.	Vaccinal condition of children attending School —excluding Secondary Schools.								Number of cases of Small-pox,		
		Vaccinated in Infancy.		Vaccinated during Epidemic for first time.		Total number Vaccinated.		Unvaccinated.		Vaccinated.	Vaccinated in Incubation period.	Unvaccinated
		No.	%	No.	%	No.	%	No.	%			
Rhymney Valley ...	7381	3577	48.46	1103	14.94	4680	63.40	2701	36.60	—	—	4
Bedwas ...	2891	1195	41.34	503	17.39	1698	58.73	1193	41.27	—	—	—
Tredegar ...	10170	4081	40.12	1438	14.14	5519	54.26	4651	45.74	—	2	3
Nantyglo and Blaina ...	3295	1051	31.87	474	14.41	1525	46.28	1770	53.72	—	—	1
Abercarn, Risca and Rogerstone ...	7811	2618	33.52	1968	25.19	4586	58.71	3225	41.29	—	4	10
Eastern Valleys ...	14084	3202	22.74	3815	27.08	7017	49.82	7067	50.18	—	11	257
Abergavenny ...	2415	868	35.93	762	31.56	1630	67.49	785	32.51	—	—	—
Monmouth ...	1618	833	51.48	307	18.98	1140	70.46	478	29.54	—	—	—
Chepstow ...	2639	1273	48.23	593	22.48	1866	70.71	773	29.19	—	—	—
Usk ...	1077	489	45.40	259	23.12	748	68.52	329	31.48	—	—	—
Totals ...	53381	19187	35.75	11222	21.20	30409	56.95	22972	43.05	—	17	275

TABLE "A "

This section gives the gross figures for the County. They are as follows:—

(a)	Number of children on school registers	...	53,381
(b)	„ „ „ vaccinated in infancy	...	19,187 or 35·75%
(c)	„ „ „ „ during the epidemic for first time		11,222 or 21·2 %
(d)	Total number of children vaccinated	...	30,409 or 56·95%
(e)	„ „ „ „ unvaccinated	...	22,972 or 43·05%
(f)	Number of children vaccinated in infancy and sub- sequently re-vaccinated		4,552

It will be noticed that a large majority of these children were unvaccinated before the epidemic began, and it shows how inevitable was the subsequent spread of Small Pox. A large number of children have since been vaccinated for the first time, i.e., 11,222, but even this brings the total of vaccinated children up to only 30,409, or 56·95%, out of 53,381 children.

Another interesting fact is that 4,552 children have been re-vaccinated after having been done in infancy. Many, if not most, of these have probably been re-vaccinated during the epidemic, so that the number of vaccinations performed during the epidemic was probably between 14,000 and 15,000.

" B "

This is a full summary of the returns submitted by the various schools. The different groups represent certain well defined areas of the County, and correspond very closely with those co-ordinated by the Education Department for administration purposes. The following are the differences: The schools of Goytre, Mamhilad, Glascoed, Usk Council and Llanhennock, have been transferred from the Eastern Valley group to the Usk group, to which they belong geographically.

" C " 1 and " C " 2.

This section contains in simplified form the facts already presented in " B " together with a list of cases of Small Pox. Thus:—

" C " 1. (a) As regards children vaccinated in infancy.

It will be seen that the group with the lowest percentage of vaccinated children is the " Eastern Valleys " group, 3,202 children vaccinated out of 14,084, or 22·74%. The highest figures are those of the " Monmouth " group, 833 children vaccinated out of 1618, or 51·48% and the " Rhymney Valley " group, 3,577 children vaccinated out of 7,381, or 48·46%.

(b) As regards children vaccinated during epidemic for the first time.

The lowest percentages of vaccinations under this heading are in the "Tredegar" group, 1,438 children, or 14.14% being vaccinated, and the "Blaina" group, 474 children, or 14.41% being vaccinated.

The best figures are those of the "Abergavenny" group, 762 children, or 31.56% being vaccinated. The other groups vary between 17% and 27%.

(c) Total number of vaccinated children.

The worst areas under this heading are the "Nantyglo and Blaina" group, 1,525 children vaccinated out of 3,295, or 46.28%, and the "Eastern Valleys" group, 7,017 children vaccinated out of 14,084, or 49.82%.

The best areas are the "Chepstow" group, 1,866 children vaccinated out of 2,639, or 70.71%, and the "Monmouth" group, 1,140 children vaccinated out of 1,618, or 70.46%.

The other groups have between 54% and 68% of vaccinated children.

(d) Cases of Small Pox.

The "Eastern Valley" group was badly protected against Small Pox before the epidemic, and it is there that an overwhelming proportion of the cases of Small Pox have occurred. Even now only half of the children are vaccinated after eight months of the epidemic.

In the Bedwas, Abergavenny, Monmouth, Chepstow, and Usk Districts there have been no cases of Small Pox.

In the "Nantyglo and Blaina" group, with the lowest percentage of vaccinated children, Small Pox has gained a foothold, and it will be interesting to watch developments in that area.

" D "

This section contains a comparison of the vaccinal condition of school children in the Rural and Industrial areas.

First of all the following points should be noticed:—

- (a) The schools at Henllys have been transferred from the "Abercarn" group.
- (b) Llanfrechfa, Caerleon, and Malpas have been transferred from the "Eastern Valleys" group.
- (c) Rhiwderin, Rumney, Marshfield, Peterstone, St. Brides, Bassaleg, Michaelstone-y-vedw, and St. Mellons have been transferred from the "Bedwas" group.

In each case the district thus transferred so as to be included in the Rural area, is a Rural one, but its schools are normally grouped with an Industrial area for administrative purposes. The figures for these areas have, therefore, been deducted from the total for Industrial areas and added to that for the purely Rural areas, i.e., to Monmouth, Abergavenny, Usk, and Chepstow.

The figures given below need no explanation beyond this. Before the epidemic, 46·20% of school children in the Rural areas were vaccinated, and 33·71% of those in the Industrial areas.

By the end of September 70·1% of the school children in the Rural area were vaccinated, and only 54·09% in the industrial area.

There have been 37·31% re-vaccinations, i.e., of children vaccinated in infancy, in the Rural area, and 19·66% in the Industrial area.

The following comparisons are based on report “ C”, and not “ D.”

Before the epidemic there was a larger percentage of vaccinated children in three of the Rural groups, Chepstow, Monmouth and Usk, than in any of the Industrial groups.

The “ Abergavenny ” group had only 35·93% of vaccinated school children, less than the “ Rhymney Valley, Bedwas, and Tredegar ” groups, the latter being in the Industrial area. In fact the “ Rhymney Valley ” group was second only to the “ Monmouth ” group, 48·46% and 51·48% respectively.

At the end of September, seven months later, each of the four Rural groups. “ Abergavenny, Chepstow, Monmouth and Usk,” had a higher percentage of vaccinated children than any of the Industrial groups.

TABLE "D"
Comparison of Rural and Industrial Areas.

GROUP.	Number of children on Register.	Number Vaccinated in Infancy.		Number Vaccinated during Epidemic for first time.		Total number Vaccinated.		Total number Unvaccinated.		Number vaccinated in Infancy and subsequently revaccinated.
		No.	%	No.	%	No.	%	No.	%	
RURAL AREA	9553	4414	46.20	2287	23.95	6701	70.15	2852	29.85	1647
INDUSTRIAL AREA	4328	14773	33.71	8935	20.38	23708	54.09	20120	45.91	2905
TOTALS	53381	19187	35.75	11222	21.20	30409	56.95	22972	43.05	4552

CONCLUSIONS.

1. Everything in this report emphasises the orthodox opinion that vaccination does protect against Small Pox. Briefly :—Among 30,409 vaccinated children there has not been a single case of Small Pox. Among 22,972 unvaccinated school children, (and some vaccinated in the incubation period) there have been 294 cases of Small Pox.
2. The protection against Small Pox at the beginning of the epidemic was quite inadequate, since only 35.75% of the children were vaccinated. In view of this, the epidemic, once started, was bound to spread.
3. During the epidemic only 11,222 unvaccinated children were vaccinated out of a total of 34,194 unvaccinated (up to 30th September, 1927). This again helps to explain the difficulty in controlling the spread of the epidemic.
4. Vaccination seems to provide a longer period of immunity to Small Pox, or, at any rate, to the type prevalent in Monmouthshire, than is usually taught. There has not been a case recorded of Small Pox in a child under the age of 14, who was vaccinated in infancy; and out of the 19,187 children vaccinated in infancy, only 4,552 were re-vaccinated. This leaves a total of 14,635 children vaccinated in infancy only among whom no case of Small Pox occurred.
5. The greatest number of cases of Small Pox have occurred in a district in which the percentage of vaccinated children was almost the lowest. However, the comparatively low percentage of vaccinated children in most groups makes it impossible to compare the relation of the percentage of vaccinated children to the Small Pox incidence in one group with that of any other group of schools.
6. The Rural areas are better protected against Small Pox by vaccination than are the Industrial areas, but perhaps not sufficiently so to explain their absolute immunity from infection. Other factors, such as lack of inter-communication between Rural and Industrial areas owing to geographical situation must also be considered.
7. Vaccination during the incubation period of Small Pox cannot be guaranteed absolutely to prevent an attack of Small Pox, as there have been 17 cases of the disease amongst children vaccinated during the incubation period.

(Signed) D. N. ROCYN JONES,

Assistant Medical Officer.

September 30th, 1927.

REPORT No. 3.

MINUTES OF PROCEEDINGS of the Panel Committee of the Medical Practitioners in the Administrative County of Monmouth, held at the County Hall, Newport, on Friday Afternoon, the 22nd day of April, 1927.

PRESENT.—Colonel W. D. Steel, Abergavenny (in the Chair), Drs. R. J. S. Verity, J. McCaig, J. O'Sullivan, A. W. Hayles, R. T. J. Burns, T. J. Frost, F. Carlton Jones, G. W. Armstrong, R. E. Roberts, and John Griffiths, with Dr. D. Rocyn Jones, Dr. H. W. Catto, and Mr. D. J. Treasure, Solicitor, Pengam (Assistant Secretary).

The Chairman explained that the Committee had been called at the request of the County Council to consider the question of the epidemic of Small Pox in Monmouthshire, and to devise some means by which the profession could render the County Medical Officer help in dealing with and surmounting the scourge. He was sure that as far as the medical profession in Monmouthshire were concerned they were at one with him in hoping that the epidemic would soon be over and that Monmouthshire would again have a clean bill of health as far as Small Pox was concerned. As Dr. Hayles, the Chairman of the Monmouthshire Division of the British Medical Association, was also a member of the Public Health Committee of the County Council, and was present when the County Council decided to call in the aid of the profession in Monmouthshire, he would now ask Dr. Hayles to speak.

Dr. A. W. Hayles outlined the discussion that had taken place at the County Council, and stated that the County Council were sincere and anxious in asking for the help of the profession in Monmouthshire to overcome the scourge of Small Pox. A very long debate upon this epidemic had taken place and the County Public Health Committee suggested that the profession might arrange to hold public meetings in the various centres to explain the epidemic of Small Pox as it was now affecting the County, and also explain the need and the value of vaccination as a preventative measure. They felt that if the local medical practitioners took a hand in the matter, the public might realise sooner the seriousness of the position.

Dr. Rocyn Jones, the County Medical Officer, then outlined the position as it affected the County. He stated that the County authorities first had knowledge of this epidemic in the last week of February of this year, although there was evidence to prove that it had prevailed in the Abersychan area since December last. At the moment they had 762 cases discovered, 722 of them being actually notified officially. There were treated at the Isolation Hospitals 296 cases of which 130 had been discharged as free of infection, while 166 were now in the Isolation Hospitals receiving treatment. The County Council provided accommodation at the following Hospitals:—

Cardiff Isolation Hospital	...	...	6 beds
Cefn (Newport) do.	...	...	14 beds
Chepstow do.	...	...	24 beds
Bedwellty do.	...	...	54 beds
Llanfoist do.	...	...	41 beds
Beeches (Abersychan) Isolation Hospital	...	...	36 beds

making a total of 175 beds.

Having regard to the incidence and type of the disease, the County Council had now ordered two further hut wards which would give an additional accommodation of 36 to 40 beds, as well as arranging for the provision of one of the rural schools in the County for Isolation Hospital purposes.

The total cost to the County by way of capital and equipment expenditure in respect of the above would amount to something like £10,000, and the isolation of 200 cases at £2 10s. 0d. per case per week for the next six months would mean a maintenance cost to the County Council of £13,000.

On behalf of the County Council he appealed to the profession in Monmouthshire to render the County Medical Staff all the help they possibly could in this matter as indicated by Dr. Hayles.

[Illustration of a small building or structure]

A brisk discussion ensued, when many questions were asked and answered, and several issues thoroughly ventilated.

It was unanimously resolved that the County Council be recommended:—

- (1) To appoint whole-time medical lecturers to visit the various centres to deliver public lectures explaining the seriousness of the position in respect of the Small Pox scourge and the value of vaccination as a preventative measure; the meetings for holding the lectures to be convened through the local councils and at which the local medical practitioners, with the District Medical Officers of Health, be invited to attend on the platform and to take part in the meetings.
- (2) To impress upon the Ministry of Health and the Boards of Guardians in the County that each panel doctor (subject to his consent) be made an assistant public vaccinator to the district public vaccinator during the period of the epidemic of Small Pox in the County, and to be subject to the same remuneration as that of the district public vaccinator.
- (3) That the medical practitioners in the County be requested to notify as soon as possible to the District Medical Officers of Health all cases of chicken pox or suspicious Small Pox cases coming to their knowledge professionally.

- (4) That the panel practitioners in the Administrative County be requested to render every possible help to the County Medical staff in combating the epidemic of Small Pox now prevailing in the County.
- (5) That a memorandum embodying the views and decision of this meeting be drawn up and circulated as early as possible to every medical practitioner in the County.

Chicken Pox

Owing to the continued epidemic of Small Pox in the County Chicken Pox was made notifiable in practically all the Urban and Rural areas. The number of cases notified being 1,727 in 1928 as compared with 1,222 in 1927.

Whooping Cough.

There was a slight increase in the number of deaths from this disease, being 41 in 1928 and 35 in 1927. As this disease is not compulsorily notifiable in any of the districts it is difficult to obtain satisfactory data as to the actual number of cases occurring, but in some areas the District Medical Officers state that the disease became epidemic during the latter months of the year.

Encephalitis Lethargica

During the year there were 13 cases of this disease notified by the District Medical Officers but according to the Registrar-General's return 16 deaths were recorded. The following table shows the districts from which notifications were received and also where deaths were recorded:—

District.			Cases notified.	Deaths recorded.
Abercarn Urban	...	...	—	1
Abergavenny Urban	...	...	1	—
Abersychan Urban	...	...	3	3
Abertillery Urban	...	...	—	2
Bedwas and Machen Urban	...	...	1	1
Bedwellty Urban	...	...	1	—
Chepstow Urban	...	...	2	2
Ebbw Vale Urban	...	...	1	1
Risca Urban	...	...	3	3
Tredeggar Urban	...	...	—	1
Chepstow Rural	...	...	1	2
			—	—
Totals	...	...	13	16

Public Health (Pneumonia, Malaria, Dysentery, etc.) Regulations, 1919.

The number of notifications from Pneumonia during 1928 was 383 as compared with 306 for 1927. There is a marked decrease in the number of deaths, the figures

being 297 for 1928 and 348 for 1927. A slight improvement in the notification under these Regulations is noted, but the figures available cannot be taken as a definite indication of the number of persons attacked. Practitioners in the County are continually being reminded of the duties imposed upon them by these Regulations.

Influenza.

The number of deaths from Influenza in 1928 was 99, which is 76 less than the previous year's figure, when the number of deaths was 175. The Medical Officers for the Districts state that although there was a considerable number of cases during the year, these were generally of a mild form and did not at any time reach epidemic proportions.

Erysipelas

The number of cases of Erysipelas notified during 1928 was 73 as compared with 67 in 1927. The Medical Officers for the Districts have made very little comment regarding this disease.

Cancer

The number of deaths registered from Cancer for the year is 345, which shows an increase over the figure for the previous year, which was 317. Practically the whole of the deaths occurred in persons between the age periods of 45 and 65 years and upwards. Very little comment is offered by the Local Medical Officers in regard to this disease, and from reports received it would appear that no local action has been taken for improving facilities for diagnosis or treatment.

Ophthalmia Neonatorum.

Thirty cases of this disease were notified under the Public Health (Ophthalmia Neonatorum) Regulations, 1914. The disease is fully commented upon in the County Maternity and Child Welfare Report which has already been published for the year 1928.

Cases			Vision Un- impaired	Vision Impaired	Total Blindness	Deaths while under treatment from causes other than Ophthalmia Neonatorum
Notified	Treated					
	at Home	in Hospital				
30	15	15	29	...	1	1

Puerperal Fever.

During the year 1928, notifications were received from the District Medical Officers of 14 cases, while in the return of deaths furnished by the Registrar-General the number due to Puerperal Sepsis was 15. In the year 1927, 14 cases were notified, with 8 deaths: in 1926, 19 cases were notified, with 7 deaths: in 1925,

22 cases, with 8 deaths; in 1924, 15 cases, with 10 deaths; in 1923, 19 cases, with 9 deaths; in 1922, 11 cases, with 14 deaths; in 1921, 17 cases, with 12 deaths; in 1920, 24 cases, with 20 deaths; in 1919, 19 cases, with 11 deaths; in 1918, 6 cases, with 3 deaths; in 1917, 4 cases, with no death; while in 1916, 13 cases were notified, 8 being fatal. The attack rate per 1,000 births in 1928 was 2.1. The attack rate per 1,000 of population equalled .037, and the death-rate per 1,000 of population .04. The death-rate per 1,000 births was 2.2.

This disease is fully commented upon in the County Maternity and Child Welfare Report.

Puerperal Pyrexia.

On the 1st October, 1926, puerperal pyrexia became a notifiable disease in addition to puerperal fever. Puerperal pyrexia is defined as any febrile condition (apart from puerperal fever) occurring in a woman within 21 days after childbirth in which a temperature of 100.4 degrees Fahr. or more has been sustained during a period of 24 hours.

Thirty-one cases of puerperal pyrexia were notified in 1928, and all were followed up by the Inspectress of Midwives. Twenty-nine cases cleared up satisfactorily, and two subsequently proved to be puerperal fever.

A scheme for the provision of facilities for diagnosis and treatment of cases is in operation. Under the scheme the services of Dr. G. I. Strachan, M.D., F.R.C.S., of Cardiff, have been retained as consultant obstetrician. Cases requiring hospital treatment are sent to the Royal Gwent Hospital, Newport, and any necessary bacteriological examination is made by Dr. H. W. Catto, County Bacteriologist, at the County Laboratory, Newport.

Anthrax and Rabies.

No cases of these diseases were notified during the year.

RAG FLOCK ACTS, 1911 AND 1928.

There are very few premises within the County where Rag Flock is manufactured, used or sold. From the reports received it is noted that these premises are regularly visited by the District Sanitary Inspectors.

RATS, Etc.

Most of the Districts have made arrangements for the destruction of rats, etc., upon their property. The refuse tips in some of the areas, it is reported, are infested with rats and extensive baiting has been applied. As the condemned foodstuffs are usually buried at these refuse tips, rats and other pests make the tips their breeding grounds. Until some other method for the disposal of refuse, condemned foodstuffs, etc., is adopted, in the form of refuse destructors, it is necessary

that strict supervision of these tips shall be maintained and the destruction of rats, etc., continued. Several of the Local Authorities have made arrangements for their Sanitary Inspectors to work in co-operation with the County Rat Destruction Officer.

DISINFECTION.

Schools.

On the outbreak of an infectious disease in a district and the schools being closed in consequence, the County Sanitary Inspector disinfects all the departments in the schools. A suitable solution of " Kerol " disinfectant is used and the method adopted is that of spraying, a MacKenzie Spray being found to be the most suitable apparatus for this work.

Rooms, etc.

Where a case of infectious disease has been isolated in or removed from a home, the District Sanitary Inspector disinfects the premises. The methods generally adopted are by gaseous or liquid disinfectants, and sometimes both are used in conjunction.

Bedding, Clothes, etc.

As stated in previous reports few of the Councils in the County have the proper facilities for the disinfection of these articles. Owing to the epidemic of Small Pox some of the districts have made arrangements with an Authority who are in possession of a suitable steam disinfecter. It is noted that some of the District Medical Officers have recommended to their Councils the advisability of providing a steam disinfecting apparatus for their areas. As it is obvious that disinfection of bedding and clothes by steam is the most thorough, it is hoped that the Councils concerned will provide the necessary machines. Disinfectants, both liquid and powder are still available in the districts to the persons responsible for the care of patients suffering from infectious disease.

TUBERCULOSIS.

During the year, 462 cases of Pulmonary Tuberculosis were notified, and 266 deaths were registered. Of other forms of Tuberculosis, 180 cases were notified and 65 deaths registered.

TUBERCULAR DISEASES.—Notification rate per 1,000 of population:—

Pulmonary Tuberculosis:—

1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
2.45	2.3	2.47	2.26	1.9	1.27	.78	.86	1.05	1.18	.93	.90	1.07	.93	1.27

Other forms of Tuberculosis:—

.65	.68	.65	.51	.48	.37	.27	.21	.34	.51	.29	.35	.44	.42	.49
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

TUBERCULAR DISEASES.—Death Rate per 1,000 of population:—

Pulmonary Tuberculosis:—

1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
.6	.80	.94	.82	.96	.77	.68	.7	.69	.65	.68	.69	.57	.61	.73

Other forms of Tuberculosis:—

.23	.28	.26	.27	.27	.21	.19	.2	.18	.21	.2	.18	.17	.19	.179
-----	-----	-----	-----	-----	-----	-----	----	-----	-----	----	-----	-----	-----	------

It will be observed that the notification rate for Pulmonary Tuberculosis is the highest since the year 1919, when a rate similar to that of this year was recorded. There is also an increase in the death rate for Pulmonary Tuberculosis over that of the previous year. The notification rate for Non-Pulmonary cases is above the figure for 1927, but there is a slight decrease in the death rate.

When making up the quarterly statistics for the perusal of the County Tuberculosis Committee, it is noticed that in some instances the Tuberculosis figures entered upon the notification of infectious disease cards, copies of which are sent to the Registrar-General, and the particulars given on the weekly forms which are sent in by the District Medical Officers of Health to this office, do not agree. The County Sanitary Inspector visits the Districts concerned, rectifies the error, and impresses upon the District Medical Officer of Health the necessity of correctly notifying the cases, with the result that during the year 1928 an improvement in the notification of this disease is again to be noted. The activities of the County Sanitary Inspector in this respect probably accounts for the increased notification rate.

Tuberculosis is a disease which generally extends over a period of years, so that in 1914, and the years immediately following, notifications were received of chronic and long-standing cases as well as the new cases coming to the knowledge of the practitioners of the County. It can now be surmised that the old cases have been detected, and that the great majority of the cases notified in recent years are new cases only.

Summary of notifications by District Medical Officers of Health to the County Medical Officer, under the Public Health (Tuberculosis) Regulations 1912, during the period 1st January, 1928, to the 29th December, 1928, with the number of Deaths notified by the Registrar General.

Age Periods.	Primary Notifications on Form A					Age Periods.	DEATHS.				
	Pulmonary.		Non-Pulmonary.				Pulmonary.		Non-Pulmonary		
	Males.	Females.	Males.	Females.	Total.		Males.	Females.	Males.	Females	Total
0	1	2	2	...	5	0	...	1	2	2	5
1	3	2	11	7	23	1	...	...	3	2	5
5	18	13	17	14	62	2	...	...	1	5	6
10	16	18	9	16	59	5	3	7	7	5	22
15	44	32	16	15	107	15	32	46	11	6	95
20	34	57	8	7	106	25	56	61	7	8	132
25	39	63	7	10	119	45	36	13	2	3	54
35	26	21	8	4	59	65	4	5	...	1	10
45	21	15	2	3	41	75	1	1	...	...	2
55	13	2	...	1	16	...	...	...	...	...	...
65 and upwards	2	1	...	...	3	...	...	...	...	...	...
Totals	217	226	80	77	600		132	134	33	32	331

No. of Notifications on Form " B " (School Medical Inspectors)				
Age Periods.	Pulmonary.		Non-Pulmonary	
	Males.	Females.	Males.	Females.
Under 5
5-10	...	1	7	1
10-15	3	3
Totals	...	1	10	4

No. of Notifications on Form " C " Admissions to:—							
HOSPITALS				SANATORIA.			
Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary	
Males	Females	Males	Females	Males	Females	Males	Females
123	127	31	23	63	29	5	10

Cases of Tuberculosis notified under the Public Health (Tuberculosis) Regulations, 1912, during the year ended December 31st, 1928.
with reports upon Examinations of Sputa, etc., at the
County Laboratory.

DISTRICTS AND SUB-DISTRICTS.			PULMONARY.			OTHER T.B. DISEASES.				Total.	
			Cases Notified	Result of Lab. examination		Specimen not submitted	Cases Notified	Result of Lab. examination			Specimen not submitted
				Pos.	Neg.			Pos.	Neg.		
URBAN.											
Abercarn			...	...	...	...	...	...	...	...
Abergavenny											
	Abergavenny	...	1	1	...	2	...	...	2	3
Abersychan											
	Pontnewynydd	...	12	6	3	3	...	2	1	15	
	Garndiffaith	...	1	1	...	5	...	...	5	6
	Talywain	...	2	1	...	2	...	...	2	4
	Abersychan	...	2	1	...	2	...	...	2	4
	Penygarn	...	3	...	2	1	...	...	...	3
	Hafodyrynys	...	1	...	...	1	...	...	...	1
	Pontypool	...	1	...	1	...	...	...	...	1
Abertillery											
	Llanhilleth	...	4	1	2	5	...	...	5	9
	Abertillery	...	10	6	2	9	...	...	9	19
	Cwmtilerry	...	1	1	...	1	...	...	1	2
	Aberbeeg	...	2	...	1	2	...	...	2	4
	Six Bells	...	2	1	...	3	...	1	2	5	
	Blaina	...	1	...	...	1	...	...	...	1
Bedwas & Machen											
	Bedwas	...	6	4	1	1	...	...	1	7
	Machen	...	9	2	3	3	...	1	2	12	
	Trethomas	...	9	4	4	3	...	...	3	12
	Maescwmmmer	...	3	...	2	1	...	...	...	5
Bedwellty											
	Blackwood	...	16	5	8	3	4	...	1	3	20
	Aberbargoed	...	11	5	2	4	4	4	15
	Cefn Forest	...	19	7	8	4	4	4	23
	Argoed	...	4	...	1	3	3	...	1	2	7
	New Tredegar	...	8	5	1	2	1	1	9
	Pengam	...	4	3	1	...	3	3	7
	Markham Village	...	2	...	1	1	3	3	5
	Bedwellty	...	2	...	1	1	2
	Fleur-de-lis	...	4	1	2	1	4
	Hollybush	...	1	1	1
Blaenavon											
	Blaenavon	...	13	3	4	6	5	1	1	3	18
Caerleon.											
	Caerleon	...	2	2	1	...	1	...	3
Chepstow											
	Chepstow	...	9	...	2	7	4	4	13

[illegible]

DISTRICTS AND SUB-DISTRICTS.			PULMONARY.				OTHER T.B. DISEASES.				Total
			Cases Notified	Result of Lab examination		Specimen not submitted	Cases Notified	Result of Lab. examination		Specimen not submitted	
				Pos.	Neg.			Pos.	Neg.		
RURAL.											
Abergavenny											
Abergavenny	...	...	1	...	...	1	...	...	...	...	1
Springwells	...	...	...	...	...	...	1	...	...	1	1
Llanwenarth Ultra	...	...	1	...	...	1	...	...	...	...	1
Chepstow											
Caldicot	...	...	1	...	1	...	1	...	...	1	2
Rogiet	...	...	3	3	...	...	...	...	...	...	3
Tintern	...	...	...	...	...	...	1	...	...	1	1
Magor.											
Llanwern	...	...	...	...	...	...	1	...	...	1	1
Christchurch	...	...	3	1	...	2	1	...	...	1	4
Nash	...	...	1	...	...	1	1	...	...	1	2
Newport	...	...	1	...	...	1	1	...	...	1	2
Llandavenny	...	...	1	1	...	...	...	...	...	...	1
Royal Oak	...	...	...	...	...	...	1	...	...	1	1
Monmouth											
Llandenny	...	...	1	...	...	1	...	...	...	...	1
Grosmont	...	...	2	...	...	2	...	...	...	...	2
Skenfrith	...	...	1	...	...	1	...	...	...	...	1
Talycoed	...	...	2	...	...	2	...	...	...	...	2
Tintern	...	...	1	...	...	1	...	...	...	...	1
Raglan	...	...	2	...	...	2	...	...	...	...	2
Llandogo	...	...	1	...	...	1	...	...	...	...	1
Tregare	...	...	1	...	...	1	...	...	...	...	1
Pontypool.											
Llantrissent	...	...	1	1	...	...	...	...	...	...	1
Ponthir	...	...	...	...	...	...	1	...	...	1	1
Coedypaen	...	...	1	...	1	...	...	...	...	...	1
Gwernesney	...	...	1	...	...	1	...	...	...	...	1
St. Mellons.											
Newport	...	...	3	...	1	2	1	...	...	1	4
Rhiwderin	...	...	1	...	...	1	...	...	...	...	1
Rogerstone	...	...	3	1	...	2	1	...	...	1	4
Rumney	...	...	2	1	...	1	...	...	...	...	2
St. Mellons	...	...	1	...	...	1	...	...	...	...	1
Lower Machen	...	...	1	...	...	1	...	...	...	...	1
Totals			462	162	130	170	180	5	22	153	642

The reports of the Tuberculosis Physicians of the Welsh National Memorial Association for the year ended March 31st, 1929, are as follows:—

West Monmouthshire Area. (Dr. J. L. Thomas)

TIME TABLE.

Pontllanfraith	...	Ennisclare	...	Every Monday and Friday at 10 a.m., and Saturday by appointment.
Abertillery	...	85 Queen Street	...	Every Wednesday at 11 a.m.
Blaina	...	Council Buildings	...	1st and 3rd Wednesdays at 11 a.m.
Ebbw Vale	...	Central Surgery	...	Every Tuesday at 11 a.m.
Newbridge	...	30 Alexandra Place	...	Every Friday at 10.30 a.m.
New Tredegar	...	Workmen's Hall	...	1st and 3rd Mondays at 11 a.m.
Pengam	...	Post Office Chambers	...	Every Monday at 11.30 a.m.
Rhymney	...	Central Surgery	...	2nd Monday at 12.30 p.m.
Risca	...	Masonic Ante Rooms	...	2nd and 4th Fridays at 10 a.m.
Trethomas	...	Dr. Barnard's Surgery	...	4th Monday at 12.30 p.m.
Tredegar	...	Central Surgery	...	Every Thursday at 12 noon.

Return Showing the Work of the Area During the Year 1928.

Diagnosis	Pulmonary				Non-Pulmonary				Totals			
	Adults		Children		Adults		Children		Adults.		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A. New cases examined during the year (excluding contacts)—												
(a) Definitely tuberculous	97	84	15	10	25	25	20	19	122	109	35	29
(b) Doubtfully tuberculous	—	—	—	—	—	—	—	—	13	13	5	8
(c) Non-tuberculous	—	—	—	—	—	—	—	—	200	210	267	220
B. Contacts examined during the year:—												
(a) Definitely tuberculous	5	13	8	5	—	2	—	5	5	15	8	10
(b) Doubtfully tuberculous	—	—	—	—	—	—	—	—	3	4	7	13
(c) Non-tuberculous	—	—	—	—	—	—	—	—	65	111	126	140

(1)	Number of Consultations with Medical Practitioners—						
	(a)	At homes of applicants	...	...	...	...	8
	(b)	Otherwise	...	...	...	...	1380
(2)	Number of other visits by Tuberculosis Officer to homes						313
(3)	Number of visits by Nurses or Health Visitors to homes for Dispensary purposes						1
(4)	Number of :—						
	(a)	Specimens of sputum, etc., examined	...	...	...	...	791
	(b)	X-ray examinations made in connection with Dispensary work	...	...	...	...	151
(5)	Number of attendances at the Dispensaries and Visiting Stations						6293

DIAGNOSIS OF NEW CASES SEEN DURING THE YEAR.

PULMONARY CASES. Adults only, *i.e.*, over 15 years of age.

(1)	(2) Total number of new cases examined.	(3) Definitely Tuberculous.	(4) Probably Tuberculous.	(5) Doubtfully Tuberculous.	(6) Probably Non- Tuberculous.	(7) Certainly not Tuberculous.	
						(a) Patient deemed healthy.	(b) Other diagnosis made.
Men ...	358	45	57	60	120	—	76
Women ...	401	45	52	83	152	—	69

Analysis of Column 7 (b), giving diagnosis arrived at:—*Men*: Bronchial catarrh, 3; Neoplasm, 1; Bronchiectasis, 3; Rheumatism with V. D. H., 1; Bronchitis and emphysema, 14; Bronchitis, 17; Emphysema, 8; Syphilis, 1; Neurasthenia, 1; Pneumonia, 1; Nas. Ph. Cat., 1; Bron. Pneumonia, 1; Valvular disease of heart, 11; Silicosis, 1; Nystagmus, 1; Abscess of lung, 1; Trauma, 1; Gastritis, 2; Goitre, 1; Aortic aneurysm, 1; Maematemesis and gastric ulcer, 1; Rheumatism, 4. *Women*: Bronchial pneumonia, 1; Bronchial asthma, 3; Addison's disease, 1; Syphilis, 3; Bronchitis, 14; Anaemia, 2; Bronchitis and emphysema, 3; Senility, 1; Dyspepsia, 1; Valvular disease of heart, 17; Tonsillitis, 1; Nasal Ph. Catarrh, 1; Bronchiectasis, 4; Bronchial catarrh, 5; Rheumatism with valvular disease of heart, 2; Goitre, 3; Laryngitis, 2; New growth, 1; Rheumatism, 3; Gastritis, 1.

NON-PULMONARY CASES. Adults and Children.

(1)	(2) Total number of new cases examined.	(3) Definitely Tuberculous.	(4) Probably Tuberculous.	(5) Doubtfully Tuberculous.	(6) Probably Non- Tuberculous.	(7) Certainly not Tuberculous.	
						(a) Patient deemed healthy.	(b) Other diagnosis made.
Men ...	50	1	24	6	9	—	10
Women ...	61	—	27	9	10	—	15
Boys ...	91	—	20	14	28	—	29
Girls ...	67	1	23	2	23	—	18

Analysis of Column 7 (*b*), giving diagnosis arrived at: *Men*: Malaria, 1; Sepsis, 2; Cervical rib, 1; Trauma, 2; Hodgkins disease, 1; Proctitis, 1; Renal calculus, 1; Syphilis, 1. *Women*: Nephritis, 1; Calculus, 1; Sepsis, 3; Endometritis, 1; Colles fracture, 1; Trauma, 1; Hyperthyroidism, 1; Keloid, 1; Septic ulcer, 1; Dysmenorrhoea, 3; Traumatic synovitis, 1. *Boys*: Sepsis, 10; Septic teeth, 1; Otitis media, 3; Dietitic diarrhoea, 2; Septic glands, 1; Rheumatism, 2; Enteric, 1; Gastro-enteritis, 6; Traumatic synovitis, 2; Traumatic arthritis, 1. *Girls*: Perthe's disease, 1; Myopathy, 1; Rickets, 1; Dysmenorrhoea, 1; Otitis media, 1; Keloid, 1; Sepsis, 1; Colic, 2; Syphilis, 1; Tonsilitis, 1; Gastro-enteritis, 7.

GENERAL OBSERVATIONS.—During the year 1928, the number of new cases increased from 1,131 to 1,738. The percentage of definite cases of tuberculosis in 1927 was 22·5, but in 1928 that percentage was 19·16, a low figure closely approximating to that of the year 1926, which was 19·6. It would be rash to draw too much comfort from this sudden drop, but it can safely be inferred that there has been a salutary effort by the patient's doctor to get a diagnosis made in a doubtful case.

The great increase in the number of contacts examined has much contributed to the large total of new cases. During the year, that number was 507, and of these 38 (or 7·5%) were definitely tuberculous. As far as possible the contacts were seen by appointment in their own home, and this fact will be referred to later.

Of the number of school children examined (121) only 6 were definitely diagnosed as tuberculous, but there was a considerable number who would be included in the class "Probably Tuberculous," and who will, doubtless, come up again in course of time, although, at the moment, they are able to carry on with their school attendance without undue loss of vitality. These will be mentioned later.

The attendance at the Dispensaries has advanced from 5,715 to 6,293—a figure still below that of 1926, which was 7,116.

As in past years, full advantage has been taken of the X-Ray Departments at Cefn Mably and Glan Ely Hospitals, and doubtful cases have been recommended for observation in both Institutions. In the case of surgical lesions we have been glad to avail ourselves of Dr. Brownlee's monthly clinic at Newport Institute.

As usual, the children classed under the useful, if cumbersome, name of Tracheo-bronchial adenopathy have presented difficulty in diagnosis. A child may have a markedly positive Von Pirquet reaction with more or less definite D'Espine sign and yet not show a symptom-complex in any way complete, and in them the X-Ray appearance may not be at all convincing. These have, of necessity, to be kept under observation, for it has been our experience that adolescence or early manhood or womanhood has again brought them to us with definite lesions.

The following is an analysis of 1,000 consecutive cases on which the Von Pirquet Cutaneous test was done during the year 1928:—

AGE GROUPS.

0—1		1—5		5—15		15 and upwards	
Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
1	6	16	34	130	214	204	92

As in past years, full-strength Tuberculin was used and the usual technique followed. Doubtful results have been counted as positive, and whenever required the test was repeated at a suitable interval. The Intra-dermal test has not been introduced into our Dispensary work, as the Von Pirquet is less alarming and has given satisfactory results. In the age group 5—15, we have been glad of its help in diagnosis, both in pulmonary and non-pulmonary cases.

In 303 (included in the 1,000) patients tested the results were not noted, and in the great majority were probably negative.

As in past years, since Cefn Mably Hospital has been opened, there has been very little delay in getting treatment for pulmonary cases, but one could wish this were the situation with regard to Surgical Tuberculosis. It is hoped that before long the shortage in this respect will be overcome.

The efforts of the daily press have inflamed the public with a desire for light treatment in all sorts of visible diseases, and it is comforting that it is possible to refer to the Glan Ely Light Clinic as being one of the most up-to-date in the country, but it must be confessed that the waiting list is long and that some delay is unavoidable.

Now that silicosis and anthracosis have come prominently to the front, the work, both in the Clinic and the X-Ray Department, will be stimulated by consideration of their relation to tuberculosis.

PENSIONERS.—As the years go by the number of Pensioners on the list is steadily diminishing. Final awards or death or 100% disability, have greatly reduced the number attending our clinics.

This year also has been one of grave economic stringency, but apparently the incidence of tuberculosis has not been markedly increased thereby. The general apathy that must be born of continued ill-fortune cannot be overlooked, and it is feared that even such a common disease as tuberculosis comes to be taken for granted and a *laissez-faire* attitude possesses the people who should be fighting it.

CARE WORK.—Care work and after-care work in the case of tuberculosis in this area cannot be said to be in a satisfactory condition, and there is need of a more complete understanding and collaboration between the various organisations

affected. The surgical cases discharged from Hospital and patients seen at Dr. Brownlee's clinic are regularly visited by the Orthopaedic Sisters, while cases needing dressings, etc., are attended to by the District Nurses.

When examining contacts in the home notice is taken of the house conditions, and suggestions are made for a more hygienic manner of living as occasion arises. Such domiciliary visits also give an opportunity of discovering potential sources of infection, and one instance may be mentioned. All the children in one house were infected by a lodger who had during some years been treated for nystagmus, for which industrial disease he was receiving compensation, and who, on examination, was found to be suffering from chronic pulmonary tuberculosis with a positive sputum. And there are probably more such sources of infection waiting to be discovered.

MATERIEL.—With the advent of a central Institute at Pontllanfraith the work of the area will have to be considerably modified and certain of the Visiting Stations closed. A more complete service will be possible in the re-arrangement, and much benefit ought to accrue from the installation of an X-Ray Department and the provision of other facilities for diagnosis and treatment.

PERSONNEL.—In the working of the area, Dr. Wells has contributed able and conscientious collaboration; while the work of the Tuberculosis Sister has been, as usual, well and carefully performed by Miss Elizabeth Williams.

The clerical and statistical department has been carefully looked after by our Clerk, Miss Clarice Richards, and her seven years of experience have counted for much in the smooth working of the area.

ACKNOWLEDGMENTS.—As in past years, collaboration with the County Health Authority has been close and cordial and an endeavour has been made to reciprocate the kindly feeling displayed by the District Medical Officers and the various general practitioners in the area.

East Monmouthshire Area. (Dr. A. Carveth Johnson.)

TIME TABLE.

Newport	...	Institute, 4 Palmyra Place	...	Mondays, 10 a.m. and 2.30 p.m., and Dom. Visits. Wednesdays, 10 a.m. and 2.30 p.m., and/or Dom. Visits. Thursdays, 10 a.m. and 2.30 p.m., and/or Dom. Visits. 2nd Friday in each month, 10 a.m. Orthopaedic Clinic. Saturday, 10 a.m. to 1 p.m., and / or Dom. Visits.
Pontypool	...	Park Buildings	...	Tuesdays, 10 a.m. and 2 p.m. Thursdays, 10 a.m.
Chepstow	...	Tycastroggy, Moor Street	...	Fridays 2.30 p.m.
Abergavenny	...	Y.M.C.A. Buildings	...	2nd and 4th Thursdays in each month at 2.30 p.m.
Monmouth	...	Out-Patients' Department, Cottage Hospital, Monmouth.	...	1st and 3rd Fridays in each month, at 12 noon
Cefn Mably	...			Tuesdays, 10 a.m.

Return Showing the Work of the Area during the Year 1928.
(East Monmouthshire only.)

Diagnosis	Pulmonary				Non-Pulmonary				Totals			
	Adults		Children		Adults		Children		Adults		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A. New cases examined during the year (excluding contacts)—												
(a) Definitely tuberculous	52	57	9	6	12	12	15	10	64	69	24	16
(b) Doubtfully tuberculous	—	—	—	—	—	—	—	—	1	2	—	1
(c) Non-tuberculous	—	—	—	—	—	—	—	—	52	79	74	80
B. Contacts examined during the year:—												
(a) Definitely tuberculous	3	—	3	2	—	—	—	—	3	—	3	2
(b) Doubtfully tuberculous	—	—	—	—	—	—	—	—	—	—	—	—
(c) Non-tuberculous	—	—	—	—	—	—	—	—	30	48	51	46

(1) Number of Consultations with Medical Practitioners:—		
(a) At homes of applicants	... ..	324
(b) Otherwise	... ..	509
(2) Number of other visits by Tuberculosis Officer to homes	...	123
(3) Number of visits by Nurses or Health Visitors to homes for Dispensary purposes	... ..	35
(4) Number of:—		
(a) Specimens of sputum, etc., examined	... ..	145
(b) X-ray examinations made in connection with Dispensary work		81
(5) Number of attendances at the Dispensaries and Visiting Stations	...	1458

DIAGNOSIS OF NEW CASES SEEN DURING THE YEAR.

PULMONARY CASES. Adults only, i.e., over 15 years of age.

(1)	(2) Total number of new cases examined.	(3) Definitely Tuberculous.	(4) Probably Tuberculous.	(5) Doubtfully Tuberculous.	(6) Probably Non- Tuberculous.	(7) Certainly not Tuberculous.	
						(a) Patient deemed healthy.	(b) Other diagnosis made.
Men ...	315	54	73	30	128	—	30
Women ...	416	43	65	27	256	—	25

Analysis of Column 7 (b), giving diagnosis arrived at:—*Men*: Aneurism, 1; Heart disease, 8; Empyema, 2; Lymphadenoma, 1; Malignant disease of the lung, 1; Chronic bronchitis, 4; Pneumonia, 1; Syphilis, 1; Pernicious Anaemia, 1; Hyperthyroidism, 1; Alcoholism, 1; Carcinoma prostate, 1; Tonsilitis, 1; Tonsils and adenoids, 2; Bronchiectasis, 2; Neoplasm lung, 1; Neurasthenia, 1. *Women*: Heart disease, 5; Pregnancy, 4; Enlarged Thyroid, 1; Bronchitis, 3; Empyema, 1; Tonsilitis, 2; Non-T. B. Laryngitis, 1; Staphylococcus abscess, 1; Pharyngitis, 1; Rheumatism, 1; Exophthalmos goitre, 1; Gastric ulcer, 1; Asthma and bronchitis, 1; Bronchiectasis, 2.

NON-PULMONARY CASES. Adults and Children.

(1)	(2) Total number of new cases examined.	(3) Definitely Tuberculous.	(4) Probably Tuberculous.	(5) Doubtfully Tuberculous.	(6) Probably Non- Tuberculous.	(7) Certainly not Tuberculous.	
						(a) Patient deemed healthy.	(b) Other diagnosis made.
Men ...	28	—	19	4	4	—	1
Women ...	45	7	23	4	9	—	2
Boys ...	60	1	32	5	16	—	6
Girls ...	61	3	36	5	12	—	5

Analysis of Column 7 (*b*), giving diagnosis arrived at:—*Men*: Lymphadenoma, 1. *Women*: Enteroptosis, 1; Sarcoma femur, 1. *Boys*: Adolescent scoliosis, 1; Pyelonephritis, 1; Tonsils and adenoids, 1; Septic adenitis, 1; Hernia, 1; Tonsillitis, 1. *Girls*: Splenic anaemia, 2; Perthe's disease, 1; Acute abscess of neck, 1; Tonsils and adenoids, 1.

The above tables refer to Newport and East Monmouthshire Area.

GENERAL MATTER.—Once again there has been an increase in the total number of new cases examined. The number of patients attending for the first time has actually increased by 25%, while the number of contacts examined has increased by nearly 40%.

The total attendances at the Institute and Visiting Stations have increased by 23%, but is still slightly below the figure for 1926. There has been a slight increase in the number of visits by the Tuberculosis Officer to the homes of patients. This figure (641 visits) is large considering the fact that the bulk of the population live in urban districts.

The percentage of ordinary new cases under the "Definitely Tuberculous" heading is high, being 36%, but the percentage of contacts is very low, being only 3.6%. This is misleading, as actually most of the contacts examined are undoubtedly "Tuberculous," and a great many have been told to attend for regular examination. Only those having active disease needing treatment have been diagnosed as "Definitely Tuberculous" for the purpose of returns and notification.

Contact work is increasing rapidly and there is an increasing desire to be examined among contacts. In many cases it is difficult for families to attend the Institute or Visiting Station, and much of this work will have to be done in patients' homes. This, however, takes a great deal of time.

An extra evening session was begun at the Newport Institute for examination of contacts who were working and unable to attend at any other time. This has been amply justified up to date.

There is still very great need of educating the general population on health matters, and I think this will have to be one of the main factors in eradicating the disease.

DIAGNOSIS AND TREATMENT.—No effort is spared to make a diagnosis as soon as possible and the "Doubtfully Tuberculous" column is kept to a minimum.

Experience has shown that it is but rarely that the case kept under observation for months ultimately turns out to be suffering from active tuberculosis.

In most non-tuberculous cases, the label " No Evidence of Active Tuberculosis " has to suffice, but where time and circumstances permit an accurate diagnosis is made.

The list giving " other diagnosis made " includes a large variety of diseases, but this is not surprising considering the many symptoms and modes of the onset of tuberculosis.

It is interesting to note the most frequent " other diagnosis " is heart disease. This, while rarely associated with tuberculosis, is probably just as common a cause of haemoptysis.

There has been a large increase in the number of patients X-Rayed at Cefn Mably, and this method of examination is proving of increasing value. It is with the very greatest satisfaction that I hear that an X-Ray apparatus is shortly to be installed at the Newport Institute. This is the most important advance for many years.

As to treatment, a steadily increasing number of patients have been treated at Cefn Mably by artificial pneumothorax, with excellent results. At present, all refills are done at Cefn Mably, but it is hoped that after the X-Ray apparatus is fitted up at the Newport Institute it will be possible to carry out refills there. The treatment will, of course, have to be begun in hospital, as at present.

On the surgical side, the continued treatment scheme is working splendidly and Dr. Brownlee's visits on the second Friday in the month are so much appreciated that the attendance at times is almost too great and foreshadows the possibility of a fortnightly attendance. In several instances, the treatment in hospital has not been required by the time a bed became available.

There is still very great need for surgical beds for " short cases," such as cases needing a few days or a week's treatment in hospital for fitting splints and scraping of glands of neck, etc. It was for cases of this type that Cardigan House was so useful and its loss is still felt. Personally, I am of the opinion that a surgical block at Cefn Mably would be extremely valuable.

PENSIONERS.—There are still a fair number of pensioners on the register but they are now mostly either totally disabled or cured. Many of the latter are rather striking. There is documental evidence to show that they had definite physical signs and T.B. plus sputum 10 to 14 years ago and now have no signs and symptoms. Unfortunately, during the year, several previously arrested cases broke down and needed further treatment.

I have again been appointed to attend the Ministry of Pensions Tuberculosis Boards weekly as a specialist. In many instances knowledge of the pensioner for many years proves of assistance while the experience obtained is very useful.

GENERAL AND SOCIOLOGICAL.—The population of the area is about 244,000, that of Newport is about 97,000, and the East Mon. part of the area is 147,000, and of these about 74,000 live in what is known as the Eastern Valley.

There is far more tuberculosis in the County Borough of Newport than in the East Mon. part of the area and the death-rate for Newport is some 50% higher than in the latter.

The smallest death-rate from Tuberculosis is in the Eastern Valley. Curiously enough, this is the part of the area where there is the most unemployment and general industrial distress, and it is here that tuberculosis might be expected to increase rapidly. So far, it has certainly not done so, but the situation will have to be watched very carefully. It is essential that all new cases of tuberculosis should be notified promptly and all contacts examined.

Up to the present no definite cases of starvation have been encountered, although, as stated last year, the food is often of the plainest variety.

In this connection the weight of 100 children examined as contacts were taken and compared with the weight of average children of the same age:—

41 were above the average.

7 were the average.

52 were below the average.

Taking the total the average was $\frac{1}{2}$ lb. below the average weight for normal children of the same age. As they were all contacts to definite tuberculosis cases and might be expected to be below the normal it looks as if there was no very serious amount of underfeeding.

CARE WORK.—Unfortunately, there is still no care committee in the area. There is very great need of efficient care committees.

There have been many cases where there has been an undoubted lack of the clothes necessary for hospital or sanatorium. The Guardians have provided clothes in many cases and local charitable ladies have helped in many other cases.

The question of employment for ex-sanatorium patients has been very difficult. Many employers have helped by keeping jobs open and a number of sanatorium cases have resumed their old employment with excellent results. Others, unfortunately, have failed to get work as with so many fit men out of work the partly disabled tuberculous men do not stand a chance.

PERSONNEL.—The Staff consists of:—The Tuberculosis Officer, the Assistant Tuberculosis Officer, Dr. R. J. Matthews, Sister Davies, who attends the Newport Institute and is the Health Visitor for tuberculosis of the Newport Corporation, and Miss Gregory, the Clerk at the Newport Institute.

There is no Tuberculosis Sister for the East Mon. area, the work being done by District Nurses and County Council Health Visitors. The whole question of nursing and health visiting will have to be reviewed at an early date.

Dr. Matthews was away doing relief work for nearly five months during the year, and from October to December Dr. Marian Owen Morris acted as Assistant Tuberculosis Officer.

MATERIEL.—The Institute and Visiting Stations remain the same as in 1927 and there appears no need for opening any further Visiting Stations.

The important improvements at the Newport Institute are to begin shortly.

ACKNOWLEDGMENTS.—Thanks are due to the Medical Officers of Health of Newport and of Monmouthshire for their assistance and to the District Medical Officers of Health and General Practitioners in the area.

Close touch is maintained with School and Infant Welfare Departments in both Newport and Monmouthshire.

The following Tables give details of the work undertaken by the Welsh National Memorial Association in the Administrative County during the year ended December 31st, 1928.

TABLE 1.

Return showing the work of the Dispensary (or Dispensaries) during the year 1928.

DIAGNOSIS.	Pulmonary				Non-Pulmonary				Total			
	Adults		Children		Adults		Children		Adults		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A.—NEW CASES examined during the year (excluding contacts) :—												
(a) Definitely tuberculous ...	150	142	24	16	37	37	35	29	187	179	59	45
(b) Doubtfully tuberculous ...	...	...	...	...	...	...	...	...	14	15	5	9
(c) Non-Tuberculous ...	...	...	...	...	...	...	...	..	253	289	342	300
B.—CONTACTS examined during the year :—												
(a) Definitely tuberculous ...	8	13	11	7	...	2	...	5	8	15	11	12
(b) Doubtfully tuberculous ...	...	...	...	...	...	...	...	...	3	4	7	13
(c) Non-tuberculous ...	...	...	...	..	...	...	...	...	95	159	177	186
C.—CASES written off the Dispensary Register as :—												
(a) Cured ...	68	45	4	6	16	14	2	4	84	59	6	10
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) ...	...	...	...	...	...	...	...	...	383	485	588	539
D.—NUMBER OF PERSONS on Dispensary Register on December 31st :—												
(a) Diagnosis completed ...	458	516	125	111	174	189	187	187	632	705	312	298
(b) Diagnosis not completed ...	..	...	...	...	...	...	...	...	20	21	14	25

TABLE 1 (Continued).

1.—Number of persons on Dispensary Register on January 1st ...	2024	10.—Number of consultations with medical practitioners:— (a) At homes of applicants ... 332 (b) Otherwise ... 1889	
2.—Number of patients transferred from other areas and of "lost sight of" cases returned ...	30	11.—Number of other visits by Tuberculosis Officers to Homes ...	436
3.—Number of patients transferred to other areas and cases "lost sight of" ...	38	12.—Number of Visits by Nurses or Health Visitors to Homes for Dispensary purposes ...	36
4.—Died during the year ...	222	13.—Number of:— (a) Specimens of sputum, etc., examined ... 936 (b) X-Ray examinations made in connection with Dispensary work ... 232	
5.—Number of observation cases under A (b) and B (b) above in which period of observation exceeded two months ...	31	14.—Number of Insured Persons on Dispensary Register on the 31st December ...	781
6.—Number of attendances at the Dispensary (including Contacts)	7751	15.—Number of Insured Persons under Domiciliary Treatment on the 31st December ...	94
7.—Number of attendances of non-pulmonary cases at Orthopaedic Out-stations for treatment or supervision ...	157	16.—Number of Reports received during the year in respect of Insured Persons:— (a) Form G.P. 17 ... 2 (b) Form G.P. 36 ... 60	
8.—Number of attendances, at General Hospitals or other Institutions approved for the purpose, of patients for:— (a) "Light" treatment ... 130 (b) Other special forms of treatment ... 42			
9.—Number of patients to whom Dental treatment was given, at or in connection with the Dispensary ...	—		

TABLE 2 (b).

Return showing the Extent of Residential Treatment during the year ended 31-12-28.

			In Institutions on January 1, 1928.	Admitted during year.	Discharged during year.	Died in Institution.	In Institutions on December 31st, 1928.
Number of Patients.	Adults.	M.	55	172	137	25	65
		F.	35	136	104	16	51
	Children.	M.	30	49	43	1	35
		F.	38	41	39	—	40
Number of Observation Cases.	Adults.	M.	—	14	12	1	1
		F.	—	19	17	—	2
	Children.	M.	2	10	10	1	1
		F.	2	4	5	—	1
	TOTAL ...		162	445	367	44	196

Return showing the immediate results of treatment of Patients and of observation of doubtful cases discharged from Residential Institutions during the year ended December 31st, 1928.

HOSPITAL (PULMONARY CASES).

Classification on admission to Institution.	Condition at time of discharge.	Duration of Residential Treatment.												Total
		Under 3 months			3—6 months			6—12 months			More than 12 months			
		M.	F.	Ch	M.	F.	Ch	M.	F.	Ch	M.	F.	Ch	
Class. T.B. Minus.	Quiescent ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Improved	22	21	14	6	5	4	1	1	3	...	...	3	80
	No material improvement	3	4	3	...	...	2	...	...	...	...	...	...	12
	Died in Institution ...	2	4	...	1	...	1	...	...	...	...	...	...	8
Class. T.B. Plus. Group 1.	Quiescent ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Improved	2	...	1	2	...	...	...	...	...	...	...	...	5
	No material improvement	...	1	...	...	...	...	...	...	...	...	...	...	1
	Died in Institution ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Class. T.B. Plus. Group 2.	Quiescent ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Improved	9	5	...	7	4	...	2	3	...	...	...	...	30
	No material improvement	2	1	1	1	1	...	...	1	...	...	...	...	7
	Died in Institution ...	...	...	...	...	...	...	...	1	...	...	...	...	1
Class. T.B. Plus. Group 3.	Quiescent ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Improved	4	...	...	5	8	...	3	...	...	..	1	...	21
	No material improvement	7	9	...	2	7	1	2	4	...	...	...	1	33
	Died in Institution ...	10	5	...	4	2	...	3	1	...	1	...	...	26
Observation for purpose of diagnosis.		Under 1 week			1—2 weeks			2—4 weeks			More than 4 weeks			
	Tuberculous	1	1	1	1	1	1	1	1	2	4	2	4	20
	Non-Tuberculous ...	...	...	...	*1	...	...	...	2	1	1	3	...	8
	Doubtful ... ..	...	...	...	...	...	...	1	2	...	2	3	...	8

* Includes 1 death.

Return showing the immediate results of treatment of Patients and of observation of doubtful cases discharged from Residential Institutions during the year ended December 31st, 1928.

HOSPITAL (NON-PULMONARY CASES).

Classification on admission to Institution.	Condition at time of discharge.	Duration of Residential Treatment.												Total
		Under 3 months			3-6 months			6-12 months			More than 12 months			
		M.	F.	Ch	M.	F.	Ch	M.	F.	Ch	M.	F.	Ch	
Bones and Joints.	Quiescent	1	1	1	..	...	1	...	...	3	...	2	9	18
	Improved	2	...	...	2	3	1	3	...	4	2	...	2	19
	No material improvement	...	...	...	1	...	...	1	...	...	1	...	1	4
	Died in Institution ...	...	2	..	...	...	...	...	...	...	...	1	..	3
Abdominal.	Quiescent ... ..	...	...	1	1	...	1	...	...	..	...	...	...	3
	Improved ... ..	...	...	1	...	...	1	...	...	...	...	1	1	4
	No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	..
	Died in Institution ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Organs.	Quiescent ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Improved	1	...	...	..	..	...	...	...	1	...	...	...	2
	No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...
	Died in Institution ...	1	...	...	...	...	...	...	...	..	1	...	...	2
Peripheral Glands.	Quiescent ... ..	...	...	...	...	...	1	...	...	...	...	...	...	1
	Improved ... ..	...	2	2	2	2	3	...	...	3	...	...	1	15
	No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...
	Died in Institution ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Observation for purpose of diagnosis.		Under 1 week			1-2 weeks			2-4 weeks			More than 4 weeks			
	Tuberculous ... ..	...	..	...	1	...	..	...	..	...	...	...	1	2
	Non-Tuberculous ...	...	...	...	...	...	...	...	...	*2	...	1	3	6
	Doubtful ... ..	...	...	...	...	...	...	...	...	...	...	1	...	1

*Includes 1 death.

Patients treated (Sanatorium and Hospital) during the year ended 31st December, 1928, at:—

Males. Females. Total.				Males. Females. Total.			
North Wales				Talgarth Sanatorium	87	—	87
Sanatorium ...	1	31	32	St. Brides			
Cefn Mably				Hospital ...	11	25	36
Hospital ...	155	164	319	Mardy Hospital	2	3	5
West Wales				Adelina Patti			
Sanatorium ...	1	6	7	Hospital ...	1	1	2
Glan Ely Hospital	48	29	77	Cwmlla Hospital	1	—	1
Preston Hall ...	1	—	1	Sealyham Hospital	—	1	1
Penhesgyn							
Sanatorium ...	—	1	1	Totals ...	321	270	591
North Wales							
Surgical Block	13	9	22				

Places of residence of the above patients.

URBAN.

Males. Females. Total.				Males. Females. Total.			
Abercarn ...	19	9	28	Rhymney ...	7	2	9
Abergavenny	9	13	22	Risca ...	16	12	28
Abersychan	19	15	34	Tredegar ...	23	26	49
Abertillery	43	20	63	Usk ...	1	4	5
Bedwas and Machen	6	13	19				
Bedwellty ...	53	31	84	Total Urban	300	256	556
Blaenavon ...	4	4	8				
Caerleon ...	1	1	2	RURAL.			
Chepstow ...	1	2	3	Abergavenny	3	2	5
Ebbw Vale ...	38	39	77	Chepstow ...	5	3	8
Llanfrechfa				Magor ...	—	1	1
Upper ...	2	3	5	Monmouth ...	3	4	7
Llantarnam	11	10	21	Pontypool ...	1	1	2
Monmouth ...	5	4	9	St. Mellons ...	9	3	12
Mynyddislwyn	20	20	40				
Nantyglo and				Total Rural	21	14	35
Blaina ...	6	5	11				
Panteg ...	2	9	11	Grand Total	321	270	591
Pontypool ...	14	14	28				

VENEREAL DISEASES.

The following is a summary of the scheme of the County Council for the prevention and treatment of these diseases:—

The Treatment Centre for the Administrative County is at the Royal Gwent Hospital, Newport. The days and hours of the sessions are:—

Males.—Tuesdays at 4.30 p.m.

Wednesdays at 2 p.m.

Thursdays (old cases only) at 4 p.m.

Fridays at 6 p.m.

Females.—Mondays at 2 p.m.

Thursdays at 2 p.m.

Facilities for the irrigation of cases of gonorrhœa are also available.

Dr. P. C. P. Ingram is the Medical Officer in charge of the Centre for men, and Dr. Mary Gordon, Assistant Medical Officer under the County Council, attends the women's sessions, and this arrangement came into force on the 28th September, 1925.

The bacteriological examinations in connection with the Centre are conducted at the County Laboratory by the County Pathologist and Bacteriologist. Laboratory facilities for private practitioners are also provided, and outfits from the Laboratory are sent to them when required.

The medical profession in the County has been circularised with the details of the scheme, and a propaganda campaign is periodically conducted by advertisements in the local newspapers, posters on public hoardings, in public and railway station urinals, and every winter by separate public lectures for men and for women.

In necessitous cases the County Council provides rail fares for patients attending the Treatment Centre, which average about £150 a year.

There is every indication that the scheme is sufficient to meet the needs of the County.

The reports of the Medical Officers in charge of the Treatment Centres are as follows:—

A.—Dr. P. C. P. Ingram.

“ The total number of patients attending for the first time showed a slight increase—277 as against 268 in the year 1927.

Analysing the figures, syphilis showed a considerable drop—from 51 to 37, and is the lowest number since the institution of the Clinic and is a striking contrast to the figures of 1920, when out of a total of 428 new cases no less than 228 were suffering from that disease, more than half as compared with less than one eighth. Fully one third of these were in the later stages of the disease.

The number of patients who were found not to be suffering from venereal disease again shows a slight increase. These are made up of two quite distinct

classes. (1). Those who had exposed themselves to the risk of infection and came to see if they had contracted anything and were found either to have nothing the matter at all or some other complaint; and (2) those with possibly a history of past venereal disease presenting symptoms analogous to one or more of the symptoms of the later stages of either syphilis or gonorrhoea which on examination were found to be due to some other disease. The majority came under the former of these two categories.

Seventy-one of the patients who attended with gonorrhoea were discharged as cured after completing all the tests of cure as suggested by the Ministry of Health, and experience has shown these to be very stringent, an increase of 15 over the figures of the previous year. When one considers the number of removals to other districts and the other factors that operate among that class they must be considered quite satisfactory.

The number of new patients suffering from gonorrhoea, 138, shows a slight increase, but of less than 5 per cent. A satisfactory feature is that patients come for treatment much earlier than they did. An investigation recently carried out for patients attending the clinic from all parts showed that in the year 1920, 70 had had the disease for three months or longer. In the year 1928, only 23, and this fact is, I think, largely responsible for the increase in the number discharged cured.

The number of patients who ceased to attend before completion of treatment shows a very gratifying fall, the total falling from 170 to 114. The figures for gonorrhoea are more satisfactory than those of syphilis for, I think, reasons given in the previous year's Annual Report.

The total attendances show a definite increase.

Several husbands whose wives are attending the Female Clinic came as the result of pressure from their wives, the result in most cases of the work of the Inquiry Officer. In most cases they were found to be suffering from one or other of the diseases and were given treatment."

B.—Dr. Mary H. M. Gordon.

" There is an increase in the number of new cases attending the Clinic for the first time. This increase is chiefly composed of non-venereal cases, and one might be justified in concluding that the public is gradually realising the dangers of venereal disease and the necessity for immediate examination and treatment if there is any suspicion that it has been contracted.

The number of new cases of gonorrhoea is slightly less than last year, but there is a slight increase in the number of new cases of syphilis. Of the new cases of syphilis, however, almost all showed symptoms of the later stages of the disease; so that one can still say that there is no increase in the number of new infections among the females of the County. Many mothers and babies are referred to the Treatment Centre from the County Maternity and Child Welfare Clinics, showing the value of the ante-natal and post-natal work done at these Centres.

Of the new patients reporting with syphilis or gonorrhoea only 12 per cent. were unmarried women.

Corresponding with the increase last year in the number of new patients suffering from gonorrhoea there is a proportionate increase in those discharged cured after completing their course of treatment. The figure for those discharged after the cure of syphilis remains much the same. The tests of cure for syphilis are very stringent, and it is difficult to persuade the patient to attend at intervals for two years after ceasing treatment, especially as her general health is usually better than it has been for some time, and she does not realise the necessity for further attendance.

There is a pleasing decrease in the number of those who ceased to attend without completing treatment. As the decrease chiefly concerns patients suffering from gonorrhoea it is specially satisfactory as it is this class of patient who is liable to spread infection if allowed to go without proper treatment. That the number of defaulters is not more is due to the Lady Inquiry Officer, who takes infinite trouble to follow up cases to their homes and persuades them to attend the Treatment Centre.

The drugs used were much the same as last year—Salvarsan compounds with Bismuth and Mercury being employed in the treatment of syphilis.”

Comparison with the reports of other counties proves that the proportion of attendances of women to men at the County Treatment Centre is greater in Monmouthshire than in most other counties.

This can be attributed to the work of the Inquiry Officer, Nurse E. M. Walters, who follows female patients (old and new) to their homes, and she invites them to undergo and persevere with treatment at the Centre. She also attends at the Treatment Centre on the days fixed for female patients, and this procedure has proved to be a great encouragement to the women to visit the Centre regularly. The work accomplished by her during the year was as follows:—

Number of visits paid in the Administrative County:

	1928	1927
To new cases which came to her knowledge and which had not undergone treatment	341	388
To old cases in which visits to the Treatment Centre had been discontinued before completion of treatment, also to old cases still under treatment ...	1657	1809
To members of Voluntary Agencies, District Nurses, etc.	245	293
Total	2243	2490

Since her appointment in July, 1918, Nurse Walters has visited 3,861 new cases.

The medical practitioners of the County approve the scheme most cordially, and the majority of them send patients to the Centre for treatment. Advantage is also taken of the facilities for tests at the County Laboratory, and 520 specimens were examined for private practitioners during the year 1928.

Details of the work carried out at the Laboratory and Treatment Centre during the year 1928, are as follows:—

1.—COUNTY LABORATORY, COUNTY HALL.

RETURN OF SPECIMENS EXAMINED.

	1928								TOTAL.	Previous Year 1927)
	For detection of Spirochaetes.		For detection of Gonococci.		For Wassermann reaction (Syphilis).		Other Examinations.			
	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males		
From County of Monmouth—										
Treatment Centre ...	23	1	518	737	404	315	17	5	2020	1966
Practitioners ..	1	—	113	102	218	83	1	2	520	528
From County Borough of Newport—										
Treatment Centre ..	53	2	431	128	456	160	16	1	1247	1194
Practitioners ..	2	—	147	70	178	102	1	—	500	468
From Other Districts—										
Leicester ..	—	—	—	—	—	—	—	—	—	3
Glamorganshire ..	1	—	6	—	8	2	—	—	17	18
Brecon ..	—	—	1	—	2	—	1	—	4	8
Cardiff ...	—	—	—	—	3	—	—	—	3	13
Hereford ...	—	—	—	—	1	—	—	—	1	1
Carmarthen ...	—	—	1	—	—	—	—	—	1	—
Totals ...	80	3	1217	1037	1270	662	36	8	4313	4199

No. of doses of substitutes for Salvarsan supplied to Medical Practitioners:—

		1928	1927
Novarsenobillon	·6 grm. =	39	115
„	·45 „ =	1	38
„	·3 „ =	14	13
	Totals ...	54	166
Stabilarson	·6 grm. =	—	20
	·45 „ =	10	10
	Totals ...	10	30
Sulphostab (Boots)	·45 grm. =	20	—
	Totals ...	20	—

The number of practitioners upon the register for the supply of salvarsan substitutes is twenty.

2.—TREATMENT CENTRE.
(ROYAL GWENT HOSPITAL, NEWPORT).

Returns of Dr. P. C. P. INGRAM, Medical Officer of Centre, to the Medical Officer of Health, relating to persons residing in the Administrative County of Monmouth.

	1928.			1927.		
	Males.	Females.	Total.	Males.	Females.	Total.
1.—Number of persons dealt with at or in connection with the Out-patient Clinic for the first time and found to be:—						
Suffering from syphilis ...	37	43	80	51	41	92
" " soft chancre ...	15	—	15	11	—	11
" " gonorrhœa ...	138	52	190	131	57	188
Not suffering from venereal disease ...	87	102	189	75	88	163
Total ...	277	197	474	268	186	454
2.—Number of persons discharged from the Out-patient Clinic after completion of treatment for:—						
Syphilis ...	11	4	15	12	4	16
Soft chancre ...	11	—	11	3	—	3
Gonorrhœa ...	71	25	96	58	22	80
Not suffering from venereal disease ...	80	100	180	82	86	168
Total ...	173	129	302	155	112	267
3.—Number of persons who ceased to attend the Out-patient Clinic without completing treatment, and who were suffering from:—						
Syphilis ...	43	67	110	49	67	116
Soft chancre ...	11	—	11	4	—	4
Gonorrhœa ...	60	44	104	117	53	170
Not suffering from venereal disease ...	—	—	—	—	—	—
Total ...	114	111	225	170	120	290
4.—Total attendances of all persons at the Out-patient Clinic who were:—						
Suffering from syphilis ...	1599	1695	3294	1613	2030	3643
" " soft chancre ...	85	—	85	36	—	36
" " gonorrhœa ...	1946	872	2818	1810	893	2073
Not suffering from venereal disease ...	199	297	496	257	291	548
Total ...	3829	2864	6693	3716	3214	6930

	1928			1927.		
	Males.	Females.	Total.	Males.	Females.	Total.
5.—Aggregate number of "In-patient days" of treatment given to persons suffering from:—						
Syphilis	267	72	339	139	28	167
Gonorrhœa	232	582	814	313	389	702
Soft Chancre	16	—	16	14	—	14
Not suffering from Venereal disease	—	—	—	4	—	4
Total	515	654	1169	470	417	887
6.—Number of persons treated with Salvarsan substitutes	176	245	421	183	269	452
7.—Number of doses of Salvarsan substitutes given:—						
Name of Drugs—Novarsenobillon						
Silversalvarsan						
Stabilarsan						
Sulfarsenal						
dose .01		—			—	
dose .05		30			81	
dose .1		35			63	
dose .15		111			84	
dose .2		225			252	
dose .25		51			—	
dose .3		216			279	
dose .45		549			554	
dose .6		174			447	
Name of Drug—Bismet dose .5cc		62			18	
dose 1cc		425			256	
Name of Drug—Bicreol dose 2cc		—			44	
Total		1878			2078	
8.—Examinations of Pathological material:—	Males.	Females.	Total.	Males.	Females.	Total.
Specimens from persons attending at the Treatment Centre which were sent for examination to an independent Laboratory—						
For detection of spirochaetes	23	1	24	30	—	30
For " " gonococci	518	737	1255	505	662	1167
For Wassermann reaction	404	315	719	401	335	736
Others	17	5	22	23	10	33
Total	962	1058	1020	959	1007	1966

No action has been taken under the Venereal Diseases Act, 1917, in the County, as no evidence has been available of breach of its provisions.

The usual lectures upon the prevention and treatment of Venereal Diseases were suspended during the Winter of 1928-29, owing to the need for financial economy. It is hoped that they will be resumed during next Winter.

MATERNITY AND CHILD WELFARE.

This work is fully dealt with in the special report published on 9th May, 1929.

BLIND PERSONS ACT, 1920.

The scheme formulated by the County Council for the Welfare of the Blind remains in operation. Under its provisions a grant of £350 per annum is paid to the Newport and Monmouthshire Blind Aid Society towards the cost of maintaining Home Workers and Home Teachers in the County.

A register is kept of the blind persons in the Administrative County, and at the 31st March, 1929, there were 585 blind persons on the register. All of them have been visited by one of the Assistant Medical Officers for the purpose of obtaining a complete record and classification as required by the Ministry of Health.

The return shows that there were 307 males and 278 females who were blind within the meaning of the Act. Details of the cases are given in the accompanying tables.

Cases of necessity amongst blind persons of the County are considered by the County Committee, and grants were made during the financial year 1928-29 to 250 persons, the total amount of the grant being £3,590 14s. 6d.

During the year some difference of opinion arose as to the activities of the County Council for Blind Welfare, and considerable opposition was evinced by the Newport and Monmouthshire Blind Aid Society towards the proposed scheme of the County Council for the establishment of the Monmouthshire County Association for the Blind, and which opposition was unfounded and unwarranted.

A Conference between the Public Health Committee of the County Council and the representatives of the Newport and Monmouthshire Blind Aid Society was held on 25th February, 1929, when the representatives of the Newport and Monmouthshire Blind Aid Society were given ample facilities to ventilate their grievances. The County Council stood firm in their approval of a County Association for the Blind, and have intimated to the Newport and Monmouthshire Blind Aid Society their decision in the matter.

Blind Registrations as at 31st MARCH, 1929.

TABLE 1.

0-5			5-16			16-21			21-30			30-40			40-50			50-60			60-70			70 and upwards			Totals.		
M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1	1	2	13	11	24	11	5	16	4	10	14	15	8	23	35	22	57	42	40	82	94	80	174	92	101	193	307	278	585

TABLE 2.—Ages at which Blindness occurred.

0-1			1-5			5-10			10-20			20-30			30-40			40-50			50-60			60-70			70 and upwards			Totals		
M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
31	28	59	10	10	20	14	8	22	12	17	29	14	16	30	35	15	50	37	25	62	55	60	115	62	66	128	37	33	70	307	278	585

TABLE 3 (a)—Employed. 16 years and upwards.

Employed.			Trained but Unemployed.			Under Training			No Training but Trainable.			Unemployable			Totals.		
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
17	2	19	3	2	5	15	9	24	17	14	31	241	239	480	293	266	559

TABLE 3 (b)—Occupations of Employed.

Agents, Collectors, etc.	Basket and Cane Workers (Shop keepers)	Dealers, (Tea Agents, Shop keepers)	Farmers.	Knitters.	Massage.	Mat Makers.	Musicians and Music Teachers.	Turners.	Miscellaneous.	Total.
2	3	3	2	1	1	1	1	4	1	19

TABLE 4.—Physically and Mentally Defectives.

Mentally Defective (a).			Physically Defective (b)			Deaf (c).			Combinations of (a), (b) and (c).			Totals.		
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
4	3	7	5	3	8	5	7	12	—	—	—	14	13	27

The scheme approved by the County Council is outlined hereunder, and it is hoped to have it in operation in due course.

CONSTITUTION.

NAME.

1. The Association shall be called "The Monmouthshire County Association for the Blind."

AREA.

3. The area of the operations of the Association shall be the Administrative Area of the County of Monmouth.

OBJECTS.

3. The objects of the Association shall be:—

- (a) To co-operate with the Newport and Monmouthshire Blind Aid Society and any other organisation thought to be desirable, provided that in the carrying out of the work cited in the sub-clauses of this section, the County Association shall avail itself of the facilities of the Newport and Monmouthshire Blind Aid Society.
- (b) To assist the County Council in regard to the registration of all blind persons residing in the area.
- (c) To notify removals to the appropriate authorities.
- (d) To co-operate with the Maternity and Child Welfare Local Committees in their respective areas, and to arrange for visits to the Blind in their own homes or elsewhere, including the sick, aged and helpless.
- (e) To encourage the Blind to read raised types.
- (f) To obtain for those in need such assistance as may be possible (e.g., State and other pensions, adequate Poor Law Relief for such cases as receive same, and other financial aid).
- (g) To promote the prevention of blindness by all possible means.
- (h) To co-operate with Local Education Authorities and with Boards of Guardians in seeing that all blind children of school age are being suitably educated and trained.
- (i) To suggest to parents and guardians how best to train and brighten the lives of blind children.
- (j) To form a pool of the monies collected, from which shall be borne the cost of financing adequately the various County Services (viz., home-workers, home-teaching, unemployables, social centres, homes, hostels, workshops and registration) before such services become statutory charge.
- (k) To assist the County Council in every possible way to administer the Blind Persons Act, 1920.

- (1) To perform such other services as may be considered necessary from time to time by the County Council for the general welfare of the Blind in order that no Blind person shall be uncared for.

GENERAL COMMITTEE.

4. The work of the Association shall be controlled by a General Committee composed of the Honorary Officers of the Association and two representatives of every District Committee (Maternity and Child Welfare), the members of the Public Health Committee of the County Council, and the members of the Committee of the Newport and Monmouthshire Blind Aid Society.

OFFICERS.

5. The General Committee shall annually elect as Officers of the Association, a President, two Vice-Presidents (one from the County Council representatives and one from the representatives of the Newport and Monmouthshire Blind Aid Society), Hon. Treasurer and Hon. Secretary.

EXECUTIVE.

6. The General Committee shall annually elect an Executive Committee who shall be responsible for carrying out the work of the Association, the Committee to consist of:—

- (i) 6 representatives of the Public Health Committee of the Monmouthshire County Council;
- (ii) 6 representatives of the local district Committees (who shall not be members of the County Council nor members of the Newport and Monmouthshire Blind Aid Society); and
- (iii) 6 members of the Committee of the Newport and Monmouthshire Blind Aid Society who shall be appointed by the said Society annually;
- (iv) The President, Hon. Treasurer and Hon. Secretary of this Association shall be *ex-officio* members of the Executive Committee, which shall elect its own Chairman.

ANNUAL MEETING.

7. The annual meeting shall be held in the month of May or on such date as may be decided upon by the Executive Committee at a place within the area.

MEETINGS OF GENERAL COMMITTEE.

8. The General Committee shall meet not less than twice yearly.

FINANCIAL YEAR.

9. The financial year shall end on 31st March, on which date all books shall be closed and the accounts forthwith prepared for audit,

ALTERATION OF RULES.

10. Any alteration to the existing rules or any new rule to be proposed shall be a recommendation by the Executive which shall submit the same to a meeting of the General Committee.

AS TO POWERS AND DUTIES OF STATUTORY AUTHORITY.

11. None of the foregoing clauses shall be interpreted as abrogating the powers and duties and obligations of the County Council as to statutory authority under the Blind Persons Act, 1920.

PUBLIC HEALTH LABORATORY.

Facilities are offered to all Medical Practitioners in the Administrative County for bacteriological examinations, and the services of the Pathologist and Bacteriologist are available for any other assistance which may be required in the diagnosis of cases of disease. The following table shows the number of specimens examined during the year and also in the previous year. The majority of the sputum tests were conducted for the Welsh National Memorial Association, whilst Venereal Diseases specimens for the most part came through the treatment centre at the Royal Gwent Hospital, Newport.

Table showing nature of specimens submitted for examination and the results thereof:—

Nature of Specimen.	No. Examined.		No. Positive.		No. Negative.	
	1927	1928	1927	1928	1927	1928
Wasserman Test for Syphilis	1988	1952	624	681	1364	1271
Smears and Urines for Gonococcus	2065	2254	339	300	1726	1954
Serum for Spirochaeta Pallidum	91	80	30	22	61	58
Sputa for Tuberculosis, etc.—						
For Tuberculosis Physicians	1410	1516	357	340	1053	1176
County Cases	392	492	58	80	334	412
Concentration Methods	48	35	—	—	—	—
Mixed Infections	15	27	—	—	—	—
Throat Swabs for Diphtheria	2848	2931	160	199	2688	2732
Widals	101	98	13	19	88	85
Hairs for Ringworm	111	99	72	44	39	55
Blood Films and Counts	45	63	—	—	—	—
Autopsies	1	2	—	—	—	—
Tissues for Section	104	116	—	—	—	—
Urines for Chemical Examination	338	395	—	—	—	—
Pus	58	71	—	—	—	—
Effusions	15	15	—	—	—	—
Vaccines	59	51	—	—	—	—
Waters	45	39	—	—	—	—
Milks	437	477	—	—	—	—
Cerebro-Spinal Fluids	44	41	—	—	—	—
Miscellaneous	336	513	—	—	—	—
Total	10551	11270	—	—	—	—

The County Pathologist reports that:—

“ The total number of specimens examined in the County Laboratory during the year 1928 shows an increase as compared with the year 1927, an increase which is spread over practically all classes of specimens.

Under the Venereal Group, the number of exudates from sores yielding a positive result for the *Spirochaeta Pallidum* showed a further reduction, the figure for the year under review being 22 as compared with 30 for 1927. Of these 22 cases, 21 were males, and 1 was a female. The female case resided in the Borough of Newport. Of the 21 males, 12 were sailors whose infection had been contracted abroad, 4 resided in the Borough of Newport and 5 belonged to the Administrative County of Monmouth. Seeing that in 1925 the number of positives was 75, one cannot help coming to the conclusion that there has been a steady decline in the incidence of the disease in the County of Monmouth, including the County Borough of Newport, during the last few years. Additional evidence on this point is obtained from the report of the Medical Officer in charge of the Venereal Clinic, who states that the number of persons attending the Clinic for the first time during the year 1928 suffering from syphilis was 80. This is in marked contrast to the numbers 306 and 324 which obtained in the years 1919 and 1920 respectively.

In a review of the situation in an article in the “ *Lancet* ” (January 14th, 1928), attention was drawn to the fact that State interference had had a marked influence in bringing about a diminution in the incidence of Venereal Diseases generally, as during the years 1920-26 the number of new cases reporting at the Clinics for syphilis throughout England and Wales had dropped from 42,805 to 22,550 annually, i.e., about 50%. The figures obtained at our Clinic show an even greater reduction than 50%, a testimony to the work done, which needs no comment.

The figures for gonorrhoeal specimens do not show such a marked improvement as is noted in the case of syphilis.

Pulmonary Tuberculosis, it is regrettable to note, continues its ravages, a higher number of specimens having been submitted for examination during the year 1928 than in 1927, with a proportionately larger number of positive results.

The incidence of Diphtheria during 1928 was practically the same as in 1927, and the County does not seem to have suffered from any serious explosive outbreaks of this disease, as was the case in the previous years. The number of notifications for 1924, 1925, 1926, 1927 and 1928 are respectively 514, 470, 355, 254 and 269.

MILK.—The milk examinations were continued during 1928, the object of the investigation being not so much to determine the quality of the milk in regard

to its chemical composition—a line of work which properly belongs to the County Analyst's Department, and which is dealt with under the Sale of Foods and Drugs Acts—but to ascertain by bacteriological methods the degree of cleanliness and wholesomeness of the milk at the time of its being sold to the consumer.

The examinations undertaken in the case of each sample have been:—

1. The enumeration of the total number of bacteria.
2. The estimation of the B.Coli content.
3. The microscopical examination of the centrifugalized deposit for the detection of starch granules, gross particles of dirt, pus, blood, etc.
4. The microscopical examination of the cream and centrifugalized deposit for Tubercle bacilli.
5. Cultural examination for Diphtheria, Typhoid, Paratyphoid, and Dysentery bacilli.
6. Guinea pig inoculations for the detection of B. Tuberculosis.
7. In addition, the common antiseptics were always tested for qualitatively, as naturally the presence of any of these bodies would have had an influence on the bacterioscopic picture. These were never found.

Of the 477 samples of milk examined in the County Laboratory 315 belong to this research, a much larger number than in the year 1927, viz., 223. From the results obtained, these 315 milks can be classified as follows:—

1.	Those which conform to the standard laid down by the Ministry of Health for " Certified Milks "	..	...	23
2.	Those which conform to the standard laid down for " Grade A " milks	...	...	100
3.	Those which conform to the standard laid down for " Grade A " milk as regards the total number of bacteria, but contain B.Coli in 1/100cc though not in less	...	...	17
	(This group would constitute borderline cases).			
4.	Those which are unsatisfactory in that they possess a high bacterial content (this in several cases numbering many millions), but are satisfactory in respect of their B.Coli content	...	...	60
5.	Those which are unsatisfactory because of a high B.Coli content, though not containing more than 200,000 bacteria per cc.	...	...	12
6.	Those which are unsatisfactory on account of the high bacterial content as well as a high B.Coli content	...	...	103

Therefore, of the 315 samples of mixed milk as retailed to the consumer, 123, or approximately 39% were of a satisfactory standard of bacteriological purity; 175, or approximately 55% were frankly unsatisfactory, while 17, or approximately 6% formed a borderline group.

These figures continue to bear out the improvement commented upon in last year's report, and this is to be attributed to the causes already stated, viz., the fact that the production of "Grade A," and "Grade A" (Tuberculin Tested) Milk by some of the vendors is setting up a competition which is all for the good of the public, and also to the wise policy which this Department has now been following for some years, viz., of having periodical milk samples collected from certain districts in the County.

In no instance were the bacilli of Diphtheria, Typhoid, Paratyphoid or Dysentery isolated, whilst with respect to the bacillus Tuberculosis, this was discovered on 10 occasions by means of the animal inoculation test. The farms implicated were visited by the County Sanitary Inspector, County Veterinary Inspector and officials of the Local Authority, and the animals in each instance identified, removed from the herd, and dealt with satisfactorily. There were in addition, 7 positive results amongst milks submitted by Veterinary Surgeons under the Tuberculosis Order, 1925, and from other miscellaneous sources. The same method of procedure was adopted as mentioned above.

Of the 116 tissues for section, 38 are grouped as malignant growths, a higher number than last year. 10 were cancers of the breast, 13 were cancers in other regions of the body such as uterus, ovary, intestine, skin, etc., and 9 were sarcomata. In this group are also included 2 Endotheliomata and 4 Rodent Ulcers. This class of specimen does not call for any comment except that the female genital organs (including the breast) accounted for 17, or 45%, of this group of specimens.

Under the heading of "Miscellaneous" are included specimens of:—

- Blood-Urea Estimations
- Fæces,
- Secretions from eye,
- Blood Cultures,
- Blood for Sugar content,
- Vomits and Gastric contents,
- Fluid from Knee.
- Cystic and other Fluids, etc.
- Diastatic tests,
- etc., etc.

This group also includes experiments carried out on animals under 39 and 40 Vic. Cap. 77, Certificates A3 and B1, licence for which has been granted to me by the Home Secretary. The experiments consisted mostly of inoculations for the detection of B. Tuberculosis, and were reported to the Home Office on 31st December, 1928.

RAINFALL.

Appended is a table giving the comparative rainfalls between various localities in the County during the year under review, and also for a series of past years.

Name of place at which records were taken.	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Abergavenny ...	50'23	35'94	51'39	45'56	47'03	43'42	37'92	33'35	37'28	31'04	47'87	23'79	33'19	40'37	49'17	41'50	35'22	43'48	43'09
Abersychan House ...	66'41	49'92	69'00	63'82	69'95	57'6	63'85	52'38	56'93	51'84	69'10	38'98	56'47	63'37	70'40	60'54	53'93	67'86	64'44
Abertillery ...	79'65	66'92	84'64	66'71	72'26	56'73	63'24	52'91	58'79	49'1	71'24	40'99	52'47	56'75	71'19	60'79	54'67	63'82	62'87
Chepstow, The Cedars	36'46	31'82	49'98	34'80	40'92	35'81	46'07	32'81	26'9	37'54	42'12	23'55	37'85	35'85	49'28	38'00	35'31	44'00	44'55
Cwmearn (Maesderwen)	—	—	—	—	—	—	—	—	—	47'4	64'15	33'91	49'16	51'83	67'58	52'39	45'30	56'99	56'99
Ebbw Vale ...	76'21	63'26	73'94	66'74	71'65	59'54	63'10	50'02	61'69	48'84	75'21	43'11	54'51	53'17	68'36	56'49	52'71	65'86	72'55
Henllys, Pantyreos Reservoir ...	59'04	52'92	70'68	60'05	62'41	52'62	59'85	46'59	59'74	50'02	63'93	37'57	55'64	58'26	74'91	55'56	51'20	63'07	69'42
Little Mill, nr. Ponty-pool ...	55'81	42'20	57'66	44'25	46'29	42'88	54'79	39'23	40'06	44'9	46'26	25'94	27'42	50'21	50'24	50'25	36'0	43'46	43'007
Ynysfiro ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46'67
Nantpyrdd ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	51'70
Pontypool, Snatchwood Park ...	65'99	52'29	69'20	64'01	62'07	57'59	61'64	51'33	56'68	51'84	69'10	37'57	57'83	63'42	72'62	60'21	56'53	69'08	Not taken
Tredegar, Redesdale House ...	69'64	60'12	74'47	61'09	61'51	51'4	—	41'95	50'44	40'8	51'70	27'49	45'82	60'73	65'67	57'02	52'45	62'86	59'08
Wentwood, Newchurch Gathering Ground ...	48'35	39'55	56'17	45'43	48'64	42'37	47'38	40'07	47'6	43'26	49'85	29'33	47'22	45'04	62'26	47'34	44'29	53'83	54'04
Wentwood Reservoir ...	41'59	34'73	48'96	39'17	42'32	37'55	44'50	37'22	43'67	41'14	46'13	25'71	42'52	41'88	57'16	41'47	39'32	46'24	46'41

VITAL STATISTICS FOR THE YEAR 1928.

DISTRICT	ESTIMATED POPULATION.	BIRTHS								DEATHS				INFANTILE MORTALITY.				Zymotic Death-rate per 1000 of estimated population.	Tubercular Death-rate per 1000 of estimated population (including Phthisis and other Tubercular diseases).	Respiratory diseases Death-rate per 1000 of estimated population.	Medical Officer of Health
		LEGITIMATE		ILLEGITIMATE		TOTAL		GRAND TOTAL	Rate per 1000 of population	Male	Female	Total	Rate per 1000 of population	TOTAL DEATHS UNDER ONE YEAR							
		Male	Female	Male	Female	Male	Female							Legitimate.	Illegitimate	Total.	Rate per 1000 births.				
URBAN.																					
Abercarn ...	20980	210	191	11	5	221	196	417	19.9	111	76	187	8.9	21	2	23	55.1	.19	.57	1.04	E. M. Griffith, M.D., Abercarn
Abergavenny ...	8851	53	66	6	3	59	69	128	14.5	69	52	121	13.6	5	—	5	39.1	.11	1.01	1.12	H. L. S. Griffiths, M.R.C.S., L.R.C.P., Abergavenny
Abersychan ...	28850	260	202	9	11	269	213	482	16.7	167	126	293	10.1	33	—	33	68.46	.59	.76	1.38	R. J. S. Verity, L.S.A., L.M.S.S.A., Garndiffaith
Abertillery ...	32840	308	294	7	12	315	306	621	18.9	195	137	332	10.1	41	3	44	70.8	.12	.94	1.82	T. Baillie Smith, M.B., CH.B., D.P.H., Abertillery
Bedwas and Machen ...	9631	104	120	3	4	107	124	231	23.9	56	57	113	11.7	24	4	28	121.2	.62	1.34	2.07	B. O. Barnard, M.B., Machen
Bedwellty ...	32080	360	372	8	20	368	392	760	23.7	197	143	340	10.6	52	5	57	75.0	.28	1.09	2.24	D. Rees Roberts, M.B., New Tredegar
Blaenavon ...	12080	95	98	2	3	97	101	198	16.3	74	67	141	11.7	12	—	12	60.6	.08	.16	2.64	J. Reynolds, M.B., CH.B., B.A.O., Blaenavon
Caerleon ...	2583	13	16	—	—	13	16	29	11.2	6	9	15	5.7	—	—	—	—	—	.38	1.16	A. M. M. Roberts, M.B., CH.B., B.S., Caerleon
Chepstow ...	4434	36	48	5	4	41	52	93	20.9	32	30	62	13.9	6	—	6	64.5	1.57	.90	1.12	T. L. Drapes, M.B., B.CH., M.R.C.S., L.R.C.P., B.A., Chepstow
Ebbw Vale ...	33650	273	287	12	7	285	294	579	17.2	241	183	424	12.6	55	—	55	94.99	.71	1.15	2.05	F. M. Fonseca, F.R.C.S., D.P.H., Ebbw Vale [stow]
Llanfrechfa Upper ...	4691	37	32	1	1	38	33	71	15.1	13	28	41	8.7	8	1	9	126.76	.42	.85	.64	A. W. Hayles, M.R.C.S., L.S.A., Upper Pontnewydd
Llantarnam ...	7959	77	63	1	2	78	65	143	17.9	46	41	87	10.9	10	1	11	76.9	.39	.75	1.76	F. C. Jones, M.B., CH.B., M.R.C.S., L.R.C.P., B.A., Cwmbran
Monmouth ...	5034	41	40	3	4	44	44	88	17.4	42	36	78	15.69	2	—	2	22.7	.39	1.78	2.16	W. H. Williams, M.R.C.S., L.R.C.P., B.A., Monmouth
Mynyddislwyn ...	16560	165	185	10	4	175	189	364	21.8	78	64	142	8.5	21	1	22	60.4	.36	.96	.90	R. E. Roberts, M.B., B.S.C., L.S.A., Cwmfelinfach
Nantyglo and Blaina ...	15200	104	100	5	4	109	104	213	14.1	81	70	151	9.9	13	1	14	65.7	.39	.45	1.38	F. M. Wallen, M.R.C.S., L.R.C.P., Blaina
Panteg ...	11670	82	89	4	2	86	91	177	15.1	68	57	125	10.8	22	2	24	135.59	.42	.42	1.45	T. J. McAllen, M.B., CH.B., Pontypool
Pontypool ...	7440	68	57	2	2	70	59	129	17.3	56	45	101	13.5	13	1	14	108.5	.80	1.34	2.56	Do. do.
Rhymney ...	11440	124	115	1	4	125	119	244	21.3	79	71	150	13.1	20	1	21	86.06	.87	1.04	2.79	R. V. de A. Redwood, F.R.C.S., L.R.C.P., Rhymney
Risca ...	17260	147	144	8	6	155	150	305	17.6	90	73	163	9.4	19	1	20	65.57	.52	.57	1.84	N. N. Wade, M.D., CH.B., Risca
Tredegar ...	24440	237	222	8	5	245	227	472	19.3	148	125	273	11.1	25	—	25	52.9	.29	1.43	1.59	E. T. H. Davies, M.D., M.S., F.R.C.S., L.R.C.P.,
Usk ...	1407	8	8	—	—	8	8	16	11.3	14	5	19	13.5	—	—	—	—	—	—	1.42	E. L. M. Hackett, L.R.C.P., L.R.C.S., Usk [Tredegar]
RURAL.																					
Abergavenny ...	9392	47	56	6	2	53	58	111	11.8	54	60	114	12.0	8	1	9	81.08	.32	.53	1.27	E. Y. Steele, L.R.C.P., L.R.C.S., Abergavenny [stow]
Chepstow ...	8869	68	89	2	6	70	95	165	18.6	58	43	101	11.4	6	1	7	42.4	.11	.67	.90	T. L. Drapes, M.B., B.CH., M.R.C.S., L.R.C.P., B.A., Chepstow
Magor ...	6593	51	45	—	2	51	47	98	14.3	41	39	80	12.1	7	1	8	81.6	.45	.75	.45	S. Hamilton, M.D., B.CH., B.A.O., D.P.H., Newport
Monmouth ...	6654	47	35	6	3	53	38	91	13.6	52	34	86	12.9	4	1	5	54.9	.45	1.65	1.50	W. H. Williams, M.R.C.S., L.R.C.P., B.A., Monmouth
Pontypool ...	5252	50	38	—	1	50	39	89	16.9	31	28	59	11.2	6	—	6	67.4	—	.57	1.71	E. L. M. Hackett, L.R.C.P., L.R.C.S., Usk
St. Mellons ...	15460	158	131	6	3	164	134	298	19.2	77	79	156	10.1	17	1	18	60.4	.32	1.22	.90	N. N. Wade, M.D., CH.B., Risca
Grand Totals, 1928	361300	3223	3143	126	120	3349	3263	6612	18.3	2176	1778	3954	10.9	450	28	478	72.29	.40	.91	1.68	
Totals for Year 1927	371350	3184	3087	132	119	3316	3206	6522	17.5	2255	1833	4088	11.0	543	27	570	87.3	.337	.80	2.09	

